

Tide Tables 2020 – East Coast of North and South America including Greenland

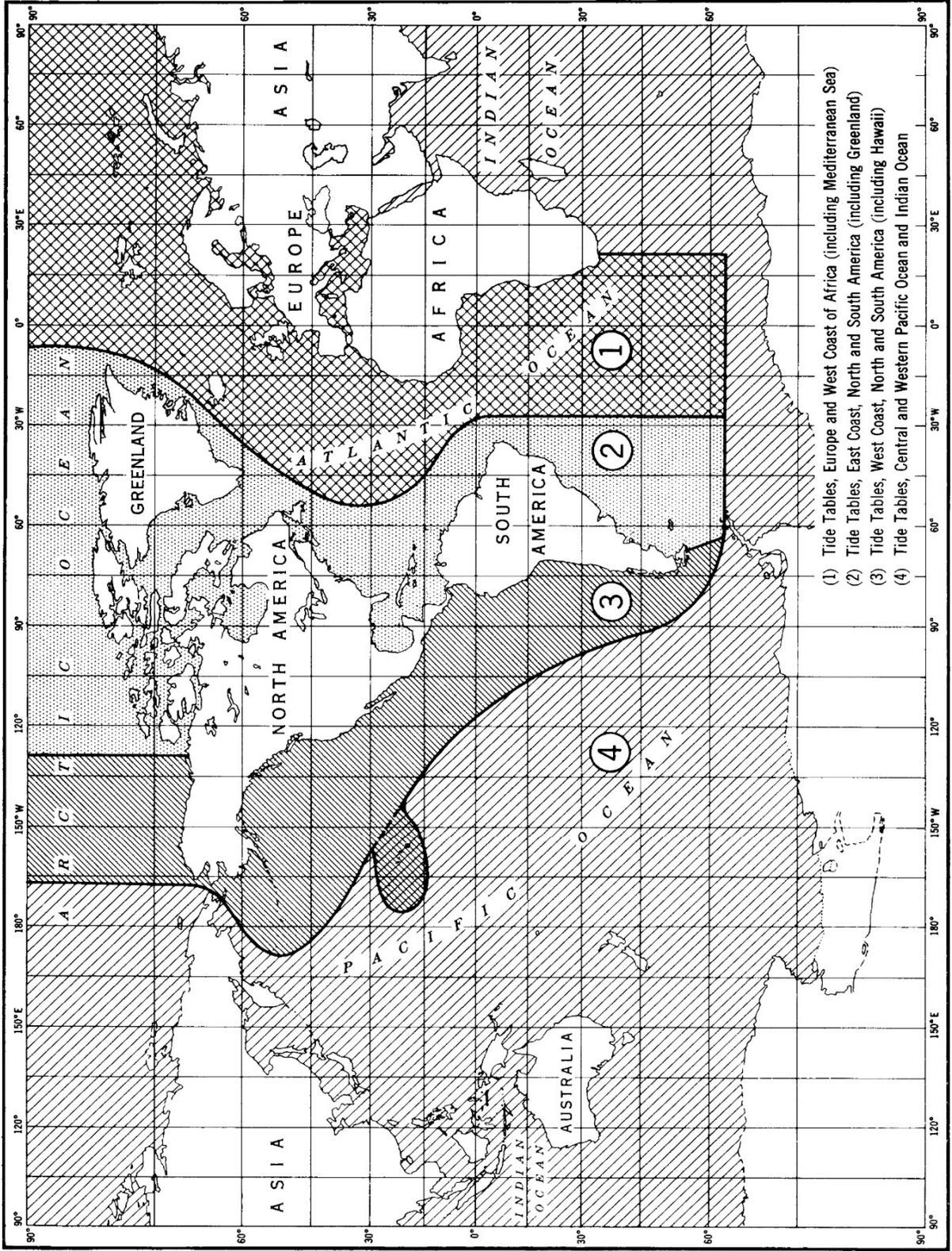
Tide Tables 2020 HIGH AND LOW WATER PREDICTIONS

East Coast of North and South America

Including Greenland



INDEX OF TIDE TABLE COVERAGE



- (1) Tide Tables, Europe and West Coast of Africa (including Mediterranean Sea)
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- (4) Tide Tables, Central and Western Pacific Ocean and Indian Ocean

Tide Tables 2020 HIGH AND LOW WATER PREDICTIONS

East Coast of North and South America

Including Greenland

Issued 2019

SOURCES OF ADDITIONAL INFORMATION

THE NATIONAL OCEAN SERVICE IS NO LONGER PRINTING AND DISTRIBUTING THE TIDE AND TIDAL CURRENT TABLES

Tide and Tidal current data continue to be updated, generated and published by the NOAA/ National Ocean Service; however, the printing and distribution in book-form is now done by several private companies working from information provided by NOS.

NOS now offers two vehicles for obtaining predictions. First, the complete set of Tables as camera-ready page-images will be available on CD-ROM. The CD-ROM vehicle is primarily intended for use by federal or private printers who wish to print in book-form the full set of Tables for distribution to resellers and the general public. Second, for domestic tide stations, predictions are available on the NOS, Center for Operational Oceanographic Products and Services (CO-OPS), website, (<http://tidesandcurrents.noaa.gov/>).

In addition to predictions, the website provides updated information on the status of the Tables as they are finalized each year. Notices concerning the most recent Table updates and publication cut-off dates are included.

For the names of companies printing and distributing the Tables, please call or write to:

National Ocean Service
Oceanographic Division, N/OPS3
1305 East-West Highway
Silver Spring, MD 20910
(301) 713-2815, fax (301) 713-4500

A list of authorized sales agents is published in the Nautical Chart Catalogs or may be obtained on request from the National Ocean Service.

TECHNICAL ASSISTANCE:

Technical questions relating to ***tide and current predictions***, as well as requests for ***special predictions***, should be addressed to:

National Ocean Service
Oceanographic Division, N/OPS3
1305 East-West Highway
Silver Spring, MD 20910
(301) 713-2815

Technical questions relating to ***actual tide observations, tidal datums, and other information necessary for engineering projects*** should be addressed to:

National Ocean Service
Oceanographic Division, N/OPS3
1305 East-West Highway
Silver Spring, MD 20910
(301) 713-2815

Technical questions relating to ***other publications and nautical charts*** should be addressed to:

National Ocean Service
Navigation Services Division
1315 East-West Highway
Silver Spring, MD 20910
(888) 990-NOAA (6622)

SOURCES OF ADDITIONAL INFORMATION

WEBSITES

Center for Operational Oceanographic Products and Services
(PORTS[®] * Predictions * Observations * Bench Marks * Tides Online * Great Lakes Online)
<https://tidesandcurrents.noaa.gov>

Marine Chart Division - <https://www.nauticalcharts.noaa.gov>

Office for Coastal Management - <https://www.coast.noaa.gov>

Ocean Predictions Center - <https://ocean.weather.gov>

National Center for Environmental Information - <https://www.ncei.noaa.gov>

National Centers for Environmental Predictions - <https://www.ncep.noaa.gov>

National Climatic Data Center - <https://www.ncdc.noaa.gov>

National Data Buoy Center - <https://www.ndbc.noaa.gov>

National Geodetic Survey - <https://www.ngs.noaa.gov>

National Geophysical Data Center - <https://www.ngdc.noaa.gov>

National Ocean Service - <https://www.oceanservice.noaa.gov>

National Oceanic and Atmospheric Administration - <https://www.noaa.gov>

National Oceanographic Data Center - <https://www.nodc.noaa.gov>

National Weather Service - <https://www.weather.gov>

U.S. Coast Guard - <https://www.uscg.mil>

U.S. Geological Survey - <https://www.usgs.gov>

U.S. Naval Observatory - <https://www.usno.navy.mil>

U.S. Naval Oceanographic Office - <https://www.usno.navy.mil/NAVO>

CORRECTIONS:

Corrections to this publication, after the date of printing, may appear in the Notice to Mariners. They may also appear in the Local Notice to Mariners, published weekly, by the various United States Coast Guard Districts.

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IMPORTANT NOTICES

For the most part, tide predictions for U.S. reference stations are based upon analyses of tide observations for periods of at least one year. Since the extremes of meteorological conditions have been excluded from the analyses and predictions, the predicted tidal heights should be considered as those expected under average weather conditions. During times when weather conditions differ from what is considered average for the area, the mariner must take note of the corresponding differences between predicted levels and those actually observed. Generally, prolonged onshore winds or a low barometric pressure can produce higher levels than predicted, while the opposite can result in lower levels than those predicted.

Exclusive of weather conditions, the astronomical tide is subject to range variations which should be noted. Decreased ranges may be expected near the times when the Moon is in apogee (apogean tides) or in quadrature (neap tides), and increased ranges may be expected when the Moon is in perigee (perigean tides) or in a new or full position (spring tides). A larger diurnal range may also result when the Moon is in its maximum declination (tropic tides). The actual range will depend upon the extent to which combinations of these positions reinforce or detract one from the other. The effect of these astronomical lineups is included in the predictions and may be apparent upon inspection.

The mariner may be kept aware of the times of these astronomical events by referring to the astronomical data listed in this book. He should realize, however, that there is generally a time lag from a few hours to several days from the time of the astronomical event to the time of the resultant tide. During times of storm surges or when extreme weather conditions are imminent, the mariner should closely follow local weather forecasts as they relate to the effects upon the tide levels.

Effective January 1, 1989, the chart datum and tidal datum chart, for all nautical charts, bathymetric maps, and tide tables covering the east coast of the United States and areas of the Caribbean Islands were changed from mean low water (MLW) to mean lower low water (MLLW). Notice of changes in tidal datums established through the "National Tidal Datum Convention of 1980" Federal Register, vol. 45, No. 207, Thursday, October 23, 1980, p. 70296-70297.

DAYLIGHT-SAVING TIME IS NOT USED IN THIS PUBLICATION. All daily tide predictions and predictions compiled by the use of Table 2 data are based on the standard time meridian indicated for each location. Predicted times may be converted to daylight saving times, where necessary, by adding 1 hour to these data. In converting times from the Astronomical Data page on the inside back cover, it should be remembered that daylight saving time is based on a meridian 15° east of the normal standard meridian for a particular place.

NOS, in partnership with other agencies and institutions, has established a series of Physical Oceanographic Real Time Systems (PORTS®) in selected areas. These PORTS® sites provide constantly updated information on tide and tidal current conditions, water temperature, and weather conditions. This information is updated every six minutes. PORTS® sites are currently in operation at several major harbors with future sites to be added. The information is accessible through a computer data connection or by a voice response system at the following sites:

PORTS® SITES	VOICE ACCESS	INTERNET ACCESS
CAPE COD	Not Available	www.tidesandcurrents.noaa.gov
CHARLESTON HARBOR	855-216-2137	"
CHERRY POINT	888-817-7794	"
CHESAPEAKE BAY	866-CH-PORTS (866-247-6787)	"
CORPUS CHRISTI	866-728-1897	"
CUYAHOGA	800-376-1192	"
DELAWARE RIVER & BAY	866-30-PORTS (866-307-6787)	"
HOUSTON/GALVESTON	866-HG-PORTS (866-447-6787)	"
HUMBOLDT BAY	855-876-5015	"
JACKSONVILLE	855-901-1549	"
LAKE CHARLES	888-817-7692	"
LOS ANGELES/ LONG BEACH	Not Available	"
LOWER COLUMBIA RIVER	888-53-PORTS (888-537-6787)	"

IMPORTANT NOTICES

PORTS® SITES	VOICE ACCESS	INTERNET ACCESS
LOWER MISSISSIPPI RIVER	888-817-7767	www.tidesandcurrents.noaa.gov
MATAGORDA BAY	888-524-9765	“
MIAMI	888-270-6145	“
MORGAN CITY	888-312-4113	“
MOBILE BAY	877-84-PORTS (877-847-6787)	“
NARRAGANSETT BAY	866-75-PORTS (866-757-6787)	“
NEW HAVEN	888-80-PORTS (888-807-6787)	“
NEW LONDON	855-626-0509	“
NEW YORK/NEW JERSEY	866-21-PORTS (866-217-6787)	“
PASCAGOULA	888-257-1857	“
PORT EVERGLADES	866-213-5269	“
PORT FOURCHON	855-687-2084	“
PORT OF ANCHORAGE	866-AK-PORTS (866-257-6787)	“
SABINE NECHES	888-257-1859	“
SAN FRANCISCO BAY	866-SB-PORTS (866-727-6787)	“
SAVANNAH	855-907-3136	“
SOO LOCKS	301-713-9596	“
TACOMA	888-60-PORTS (888-607-6787)	“
TAMPA BAY	866-TB-PORTS (866-827-6787)	“
TOLEDO	888-547-9131	“



PUBLISHED CAUTIONARY NOTICES

Published in Local Notice to Mariners and United States Coast Pilot Notices

NOAA is discontinuing the printed Tide Tables and Tidal Current Tables publications

Due to the availability of electronic predictions products, NOAA is ending the production of the printed Tide Tables and Tidal Current Tables publications. This, the final printed edition, will provide tide and tidal current predictions for the calendar year 2020.

NOAA and its predecessor agencies have produced and distributed predictions of high and low tides at ports along the U.S. coastline since 1867, and times/speeds of tidal currents since 1920. These predictions are currently produced in the form of six (6) annual publications, which are distributed through licensed commercial publishers.

NOAA is discontinuing the production of these annual publications due to: (a) Recent changes by the U.S. Coast Guard in the interpretation of the requirements for predictions, no longer requiring these publications in paper format. (b) The availability of online and electronic services providing tide and tidal current predictions which meet the U.S. Coast Guard requirements for navigation, and support other activities along the U.S. coast.

Tide and Tidal Current predictions are available through NOAA's Center for Operational Oceanographic Products and Services (CO-OPS) online services:

IMPORTANT NOTICES

- NOAA Tide Predictions: https://tidesandcurrents.noaa.gov/tide_predictions.html
- NOAA Current Predictions: <https://tidesandcurrents.noaa.gov/noaacurrents/Regions>

These online services provide predictions which equal or exceed the accuracy and availability of the predictions at domestic locations provided through printed publications, and provide additional capabilities allowing the predictions to better meet a variety of different user needs. These online services will provide predictions for locations for the U.S. coasts, and areas in which NOAA has some responsibility or authority. International predictions, previously provided by agencies in other countries for use in the printed publications, will not be available from the online services. Predictions for countries outside the U.S. may be obtained through the Oceanographic / Hydrographic agency in that country.

Contact NOAA's Center for Operational Oceanographic Products and Services (CO-OPS) with questions or for further information.

E-mail: Tide.Predictions@noaa.gov

Phone: 301-713-2815

(Issued: October 1, 2019)

DAILY TIDE PREDICTIONS UPDATED FOR CUBA

In 2016, the NOAA/National Ocean Services', Center for Operational Oceanographic Products and Services (CO-OPS) started an exchange of daily tide predictions with Servicio Hidrografico y Geodesico de La Republica de Cuba. As a result of this exchange of information, the Tide Tables – East Coast of North and South America will now include daily tide predictions for four reference stations in Cuba, beginning with the 2017 Tide Tables.

Havana; Moa, Holguin; Santiago de Cuba; Bahia de Cienfuegos

Tide predictions at these stations will be updated annually. As the exchange of tide prediction information between NOAA and authorities in Cuba matures, it is expected that subordinate stations along the coast of Cuba will be updated and there may be some changes in the stations at which daily predictions are provided. Mariners should expect changes to the tide predictions provided in Cuba for several years. It is anticipated that most of these changes will be to the subordinate stations provided.

For additional information, please contact CO-OPS via e-mail at Tide.Predictions@noaa.gov or (301) 713-2815.

(Issued: October1, 2016)

OBSERVED TIDAL CONDITIONS DIFFER FROM TIDAL PREDICTIONS IN THE HUDSON RIVER

The observed tides along the Hudson River have been reported to differ significantly from the published tide predictions; particularly in the northern section of the river from Newburgh to Albany, New York. Based on limited reports and comparisons to USGS stream gauges, it appears that high tides are occurring approximately 1 hour earlier than predicted.

NOAA has no information on what may be causing the difference between predictions and observations. This could be the result of natural changes (shoaling, erosion, etc) or artificial changes (dredging, construction, etc) in the Hudson River. Based on preliminary evidence, this does not appear to be a temporary condition and may indicate a long term change in the tidal conditions of the Hudson River.

IMPORTANT NOTICES

NOAA does not have any water level stations operating along the length of the Hudson River, with the nearest operating station being located at The Battery, New York. Without observational data in the area, the extent of the difference between predictions and observations cannot be confirmed; neither can the areas affected by this change. Resources are not available for the installation and operation of water level stations along the Hudson River.

Mariners operating in this area are urged to use caution.

(Issued: May 24, 2010)

TIDAL CURRENT PREDICTIONS INSIDE U.S. ESTUARIES

At present there are several U.S. estuaries with operational Physical Oceanographic Real Time Systems (PORTS) installed. PORTS systems are presently being installed in several additional estuaries. Over the next ten years there are projected to be twenty or more additional systems installed. In the past, the tidal current reference station has always been located at the entrance to each estuary. All tidal current secondary stations both inside and outside (along the coast) have been referred to the reference station at the entrance to the estuary. This will no longer be the case in estuaries with an operational PORTS system.

Estuaries with an operational PORTS system will have at least two reference stations. One will be the historic station at the entrance to the estuary. All secondary stations along the coast will continue to be referred to this station. The second tidal current reference station will be the primary PORTS station within the estuary. All secondary locations within the estuary itself will be referred to this location. Depending on the circulation dynamics of the estuary, daily tidal current predictions may be provided for one or more additional stations within the estuary.

(Issued October 1, 1999)

ARANSAS PASS – CORPUS CHRISTI BAY, TX

The Aransas-Corpus Christi Pilots have reported that published tidal current predictions for Aransas Pass deviate from observations by as much as two (2) hours. The published predictions must be used with extreme caution. The Pilots should be consulted for critical transits. Tidal Current predictions of the National Ocean Service (NOS) are derived from analysis of observed data at tidal harmonic frequencies which in turn are based on predictable astronomic positions of the moon and sun. The problem in many areas of the Gulf of Mexico, including the south Texas coast, is that localized meteorological conditions can significantly effect and alter the times of maximum flood and ebb currents. Real-time observation and reporting systems, such as the Physical Oceanographic Real Time System (PORTS) installed in the Galveston-Houston area, are the only means of providing accurate tidal current data for areas such as this.

(Issued July 17, 1997)

BISCAYNE BAY/PORT OF MIAMI, FL

The Biscayne Bay Pilots report that recent dredging and construction by the US Corps of Engineers (COE) supporting Miami port expansion has significantly effected the currents in Miami Harbor. Both flood and ebb currents should be expected to be stronger than indicated in official published predictions. The actual times for maximum and slack currents should be expected to deviate from the published predictions. Funding to support a survey to obtain new data for more accurate tidal current predictions is not available at this time. Installation of a Physical Oceanographic Real Time System (PORTS), like the one in operation in Tampa Bay, would be the best solution for long term marine safety.

(Issued July 17, 1997)

IMPORTANT NOTICES

CHARLESTON HARBOR, SC

The US Army Corps of Engineers (CEO) is planning dredging and construction projects for Charleston Harbor in 1996-1997. Such projects in the past in other areas have resulted in dramatic changes in the observed tidal currents of those areas. Once dredging and/or construction operations commence, the Tidal Current predictions for this region should be considered questionable and potentially dangerous to rely upon. Tide predictions will also be affected but to a lesser degree. Funding for a real time system to monitor the Tidal Currents and a resurvey of the area after COE operations are complete is presently not available. Therefore, once COE operations begin and until such time as a real-time system is installed or a resurvey of the area conducted, the National Oceanic and Atmospheric Administration, National Ocean Service will be unable to provide accurate Tidal Current predictions necessary for marine safety and navigation in this area.

(Issued June 5, 1996)

CHESAPEAKE & DELAWARE CANAL AND BALTIMORE HARBOR CONNECTING CHANNELS

The US Army Corps of Engineers (COE) is planning a project involving the Chesapeake & Delaware Canal (C&D) and the channels in the upper Chesapeake Bay connecting the canal to Baltimore, MD in 1996-1997. Such projects in the past in other areas have resulted in dramatic changes in the observed tidal currents of those areas. Once the project begins, the Tidal Current predictions for the C&D Canal and the channels connecting the canal to Baltimore should be considered questionable and potentially dangerous to rely upon. Tide predictions will be affected but to a lesser degree. Funding for a real-time system to monitor the Tidal Currents and a resurvey of these areas after COE operations are complete is presently not available. Therefore, once COE operations begin and until such time as a real-time system is installed or a resurvey of the area conducted, the National Oceanic and Atmospheric Administration, National Ocean Service will be unable to provide accurate Tidal Current predictions necessary for marine safety and navigation in this area.

(Issued June 5, 1996)

ST. AUGUSTINE, FL – ATLANTIC INTRACOASTAL WATERWAY

The US Coast Guard (USCG) has reported a problem involving the Tidal Currents in the Atlantic Intracoastal Waterway (AICW) in the St. Augustine, FL area. The specific location is the Bridge of Lions over the waterway. Numerous accidents have occurred at this site which are related to the currents in the waterway. There is no National Ocean Service (NOS) Tidal Current Station at or near the Bridge of Lions. Thus the NOS cannot, at this time, make Tidal Current predictions for this location. The USCG states that the cause of the accidents is loss of maneuverability (control) as a vessel passes under the bridge. The loss of maneuverability results in the vessel striking the bridge supports. The USCG states in part:

“The affect of a ‘fair’ tide on a navigating vessel is to reduce the vessel’s ability to maneuver. When a vessel is proceeding with a current (fair tide), less water flows across the vessel’s rudders. This condition has the affect of reducing the vessel’s maneuverability for a given speed over ground (all other things being equal).

The Bridge of Lions is a difficult bridge to navigate, even under ideal conditions. This circa 1926 Bascule bridge has a horizontal clearance of only 76’ verses the 90’ horizontal clearance of most of the other bridges on this section of the AICW.”

In addition, according to the US Coast Pilot, Vol 4, Chapter 12, Tidal Currents in excess of 2 knots often run at right angles to the bridge opening. The Coast Pilot advises mariners to transit the bridge at minimal Tidal Current conditions. Funding for real-time monitoring of the Tidal Currents or a survey to obtain Tidal Current observations upon which to base Tidal Current predictions for this location is not presently available. A consortium of local, state, and federal officials in conjunction with the private sector and commercial shipping interests are presently studying various options to provide accurate Tidal Current predictions necessary for marine safety and navigation at this location.

(Issued June 5, 1996)

IMPORTANT NOTICES

WILMINGTON AND CAPE FEAR RIVER, NC

The US Army Corps of Engineers (COE) is due to begin dredging operations in the Wilmington and Cape Fear River area in 1997. The plans call for the deepening of the channel approaching Wilmington and extending up the Cape Fear River. Such actions in the past in other areas have resulted in dramatic changes in the observed tidal currents of those areas. Once dredging operations commence, the Tidal Current predictions for this region should be considered questionable at best and potentially dangerous to rely upon. Tide predictions will also be affected but to a lesser degree. Funding for a real-time system to monitor the Tidal Currents during the project and a resurvey of the area after COE operations are complete is presently not available. Therefore, once COE operations begin and until such time as a real-time system is installed or a resurvey of the area conducted, the National Oceanic and Atmospheric Administration, National Ocean Service will be unable to provide accurate Tidal Current predictions necessary for marine safety and navigation in this area.

(Issued June 5, 1996)

HAMPTON ROADS, VA

Tidal currents in Hampton Roads and Elizabeth River have been significantly altered by dredging and construction of a new bridge/tunnel. Recent dredging by the U.S. Army Corps of Engineers has deepened the channels by 10 feet to a depth of 50 feet. Pilots and officials at the Norfolk Naval Base report hazardous conditions including significantly higher than predicted maximum current velocities, and significant deviation in the predicted times of maximum current. Mariners should exercise EXTREME CAUTION and DISCRETION in the use of published NOS tidal current predictions for this area. Funding for a Quality Assurance study and a full scale resurvey of the area is presently not available.

(Issued March 24, 1992)

CHINCOTEAGUE CHANNEL, VA

United States Coast Guard (USCG) Personnel at the Chincoteague Coast Guard Station, VA report that the times of high and low water computed from differences in Table 2 of the East Coast Tide Tables are frequently off by as much as an hour. The channel is subject to shoaling and is frequently dredged. Exercise caution in using Table 2 Tide differences for this area.

(Issued May 17, 1991)

INTRODUCTION

Tide tables for the use of mariners have been published by the National Ocean Service (formerly the Coast and Geodetic Survey) since 1853. For a number of years these tables appeared as appendixes to the annual reports of the Superintendent of the Survey, and consisted of detailed instructions enabling the mariner to make his own prediction of tides as the occasion arose.

The first tables to give predictions for each day were those for the year 1867. They gave the times and heights of high waters only and were published in two separate parts, one for the Atlantic coast and the other for the Pacific coast of the United States. Together they contained daily predictions for 19 stations and tidal differences for 124 stations. A few years later predictions for the low waters were also included, and for the year 1896 the tables were extended to include the entire maritime world, with full predictions for 70 ports and tidal differences for about 3,000 stations.

The tidal tables are now issued in four volumes, as follows: *Europe and West Coast of Africa (including the Mediterranean Sea)*; *East Coast of North and South America (including Greenland)*; *West Coast of North and South America (including the Hawaiian Islands)*; *Central and Western Pacific Ocean and Indian Ocean*. Together, they contain daily predictions for more than 250 reference ports and differences and other constants for more than 6,500 stations.

This edition of the Tide Tables, *East Coast of North and South America*, contains full daily predictions for more than 70 reference ports and differences and other constants for more than 2,500 stations in North America, South America, and Greenland. It also contains a table for obtaining the approximate height of the tide at any time, a table of local mean time of sunrise and sunset for every 5th day of the year for different latitudes, a table for the reduction of local mean time to standard time, a table of moonrise and moonset for 8 places, a table of the Greenwich mean time of the Moons' phases, apogee, perigee, greatest north and south and zero declination, and the time of the solar equinoxes and solstices, and a glossary of terms.

Up to and including the tide tables for the year 1884, all the tide predictions were computed by means of auxiliary tables and curves constructed from the results of tide observations at the different ports. From 1885 to 1911, inclusively, the predictions were generally made by means of the Ferrel Tide-predicting machine. From 1912 to 1965, inclusively, they were made by means of the Coast and Geodetic Survey tide-predicting machine No. 2. Since 1966, predictions have been made by electronic computer.

In the preparation of these tables all available observations were used. In some cases, however, the observations were insufficient for obtaining final results. As further information becomes available it will be included in subsequent editions. All persons using these tables are invited to send information or suggestions for increasing their usefulness to the National Ocean Service, Oceanographic Division, 1305 East-West Highway, N/OPS3, Silver Spring, Maryland 20910, U.S.A.

The information presented in *Table 4 - Local mean time of sunrise and sunset* and in *Table 6 - Moonrise and Moonset* is computed by the National Ocean Service using the Interactive Computer Ephemeris Program provided by the United States Naval Observatory.

In accordance with cooperative arrangements between the National Ocean Service and the authorities listed below, predictions for the following stations appear in this issue:

Canadian Hydrographic Service.—Harrington Harbour, Quebec, Halifax, St. John, Pictou, and Argentia.

Directoria de Hidrografia e Navegacao, Brazil.—Recife, Rio de Janeiro, and Santos.

Servicio Hidrografico, Argentina.—Buenos Aires, Puerto Ingeniero White, Comodoro Rivadiva, and Punta Loyola.

LIST OF REFERENCE STATIONS

Station Name	Page	Datum below mean sea-level	Updated	Data Series
Albany, New York.....	80	2.49	1966	3 years (1984-1987)
Amuay, Venezuela	280	0.65		
Apalachicola, Florida	192	0.92	1999	3 years (1995-1997)
Argentina, Newfoundland	4	4.30		
Atlantic City, New Jersey.....	88	2.23	2006	5 years (1999-2003)
Baltimore, Maryland	108	0.82	2001	5 years (1994-1998)
Bar Harbor, Maine	32	5.71	2003	5 years (1992-1996)
Bayonne Bridge, Staten Island, New York	76	2.78	1999	4 years (1990-1991, 1994-1995)
Boston, Massachusetts	40	5.22	2001	5 years (1994-1998)
Breakwater Harbor, Delaware	92	2.27	2001	5 years (1994-1998)
Bridgeport, Connecticut.....	64	3.61	2001	5 years (1994-1998)
Buenos Aires, Argentina.....	304	2.60		
Cape Hatteras, North Carolina	132	1.65	1998	4 years (1988-1991)
Cedar Key, Florida	184	2.03	2003	5 years (1992-1997)
Charleston, South Carolina	144	2.95	2003	5 years (1996-2000)
Charlotte Amalie, St. Thomas Island.....	268	0.38	2002	8 years (1984-1991)
Chesapeake Bay Bridge Tunnel, Virginia.....	116	1.45	2006	5 years (1999-2003)
Cienfuegos, Cuba.....	244			
Comodoro Rivadavia, Argentina	312	10.30		
Cristobal (Colon), Panama	232	0.38		
Dauphin Island, Alabama	200	0.57	1998	4 years (1993-1996)
Duck Pier, North Carolina.....	124	1.81	2003	5 years (1996-2000)
Eastport, Maine	28	9.71	2001	5 years (1994-1998)
Fernandina Beach, Amelia River, Florida.....	152	3.35	2003	3 years (1998-2000)
Galveston (Galveston Channel), Texas	216	0.82	2006	5 years (1999-2003)
Grand Isle (East Point), Louisiana.....	212	0.56	2006	5 years (1999-2003)
Halifax, Nova Scotia	20	4.30		
Hampton Roads (Sewells Pt.), Virginia	120	1.38	2002	5 years (1995-1999)
Harrington Harbour, Quebec.....	12	3.50		
Havana, Cuba	248			
Isla Zapara (Malecon), Venezuela	276	2.70		
Key West, Florida	172	0.92	2003	5 years (1996-2000)
Kings Point, Long Island, New York.....	68	3.87	2006	5 years (1999-2003)
Lime Tree Bay, St. Croix Island.....	272	0.38	2002	3 years (1995-1997)
Magueyes Island, Puerto Rico	260	0.34	2002	3 years (1995-1997)
*Mayport, Florida	156	2.46	2019	5 years (2012-2016)
Miami, Government Cut, Florida	164	1.43	2005	2 years (1985-1986)
Moa, Holguin, Cuba.....	256			
Mobile, Alabama.....	204	0.83	2016	6 years (2008-2013)
Montauk, Fort Pond Bay, New York.....	56	1.09	2003	5 years (1996-2000)
Myrtle Beach, South Carolina.....	140	2.75	2006	5 years (1999-2003)
Nantucket, Massachusetts	44	1.79	2005	5 years (1999-2003)
*Naples, Florida.....	176	1.69	2019	5 years (2012-2016)
New London, Connecticut	60	1.55	2001	5 years (1994-1998)
New York (The Battery), New York	72	2.58	2006	5 years (1999-2003)
Newport, Rhode Island.....	52	1.77	2001	5 years (1994-1998)
Ocean City, Maryland.....	104	1.87	1999	5 years (1985-1989)
Oregon Inlet, North Carolina	128	0.66	1999	4 years (1995-1998)
Padre Island (south end), Texas	224	0.86	1998	1 year (1963)
Pensacola, Florida.....	196	0.62	2003	5 years (1996-2000)
Philadelphia, Pennsylvania	100	3.47	2006	5 years (1999-2003)
Pictou, Nova Scotia	8	3.90		

LIST OF REFERENCE STATIONS

Station Name	Page	Datum below mean sea-level	Updated	Data Series
Port Canaveral (Trident Pier), Florida	160	1.92	2003	5 years (1997-2001)
Port O'Connor, Texas.....	220	0.42	1999	29 days beginning 2/1/1989
Portland, Maine	36	4.93	2001	5 years (1993-1997)
Puerto Ingeniero White, Argentina	308	8.50		
Punta Gorda, Venezuela	284	3.30		
Punta Loyola, Argentina	316	20.30		
Quebec, Quebec	16	8.50		
Recife, Brazil	292	3.70		
Reedy Point, Delaware.....	96	2.99	2006	5 years (1999-2003)
Rio de Janeiro, Brazil	296	2.30		
Saint John, New Brunswick.....	24	14.50		
*San Juan, Puerto Rico	264	0.78	2019	4 years (2012-2016)
Sandy Hook, New Jersey	84	2.56	2006	5 years (1999-2003)
Santiago de Cuba.....	252			
Santos, Brazil	300	2.50		
Savannah River Entrance, Georgia.....	148	3.80	2003	5 years (1996-2000)
Settlement Point, Grand Bahama Island	240	1.45	2002	4 years (1986-1988,1990)
South Pass, Louisiana.....	208	0.68	1999	3 years (1989-1991)
St. Georges Island, Bermuda	236	1.35	2002	4 years (1990-1993)
St. Marks River Entrance, Florida	188	1.93	1996	358 days beginning 9/1/1970
St. Petersburg, Florida	180	1.19	2006	5 years (1999-2003)
Suriname River Entrance, Surinam.....	288	4.28		
Tampico Harbor (Madero), Mexico.....	228	0.84		
Vaca Key, Florida Bay, Florida	168	0.52	2017	6 year (2009-2014)
Washington, D.C.	112	1.56	2001	5 years (1994-1998)
Wilmington, North Carolina	136	2.33	2006	5 years (1999-2003)
Woods Hole, Massachusetts	48	1.04	2005	5 years (1999-2003)

* New or updated station

Each datum figure above represents the difference in elevation between the local mean sea (or river) level and the reference level from which the predicted heights in table 1 were calculated.

Local mean sea level datum should not be confused with the National Geodetic Vertical Datum which is the datum of the geodetic level net of the United States. Relationships between geodetic and local tidal datums are published in connection with the tidal benchmark data of the National Ocean Service.

TABLE 1.— DAILY TIDE PREDICTIONS

EXPLANATION OF TABLE

This table contains the predicted times and heights of the high and low waters for each day of the year at a number of places which are designated as *reference stations*. By using tidal differences from Table 2, one can calculate the approximate times and heights of the tide at many other places which are called *subordinate stations*. Instructions on the use of the tidal differences are found in the explanation of Table 2.

High water is the maximum height reached by each rising tide, and low water is the minimum height reached by each falling tide. High and low waters can be selected from the predictions by the comparison of consecutive heights. Because of diurnal inequality at certain places, however, there may be a difference of only a few tenths of a foot between one high water and low water of a day, but a marked difference in height between the other high water and low water. Therefore, in using the Tide Tables it is essential to note carefully the heights as well as the times of the tides.

Time.— The kind of time used for the predictions at each reference station is indicated by the time meridian at the bottom of each page. Daylight-saving time is not used in this publication. If daylight-saving time is required, add one (1) hour to the predicted time.

Datum.— The datum from which the predicted heights are recorded is the same as that used for the nautical charts of the locality. The datum for the Atlantic coast of the United States is mean lower low water (MLLW). For foreign coasts a datum approximating to mean low water springs, Indian spring low water, or the lowest possible low water is generally used. The depression of the datum below mean sea level (MSL) for each of the reference stations of this volume is given on the preceding page.

Depth of water.— The nautical charts published by the United States and other maritime nations show the depth of the water as referred to a low water datum corresponding to that from which the predicted tidal heights are recorded. To find the actual depth of water at any time, the height of the tide should be added to the charted depth. If the height of the tide is negative—that is, if there is a minus sign (—) before the tabular height—the height should be subtracted from the charted depth. For any time between high and low water, the height of the tide may be estimated from the heights of the preceding and the following tides, or Table 3 may be used. The reference stations in Table 1 contain the heights in centimeters as well as in feet.

Variation in sea level.— Changes in winds and barometric conditions cause variations in sea level from day to day. In general, with onshore winds or a low barometer the heights of both the high and low waters will be higher than predicted, while with offshore winds or a high barometer they will be lower. There are also seasonal variations in sea level, but these variations have been included in the predictions for each station. At ocean stations the seasonal variation in sea level is usually less than half a foot.

At stations on tidal rivers the average seasonal variation in river level due to freshets and droughts may be considerably more than a foot. The predictions for these stations include an allowance for this seasonal variation representing average freshet and drought conditions. Unusual freshets or droughts, however, will cause the tides to be higher or lower, respectively, than predicted.

Number of tides.— There are usually two high and two low waters in a day. Tides follow the Moon more closely than they do the Sun, and the lunar or tidal day is about 50 minutes longer than the solar day. This causes the tide to occur later each day, and a tide that has occurred near the end of one calendar day will be followed by a corresponding tide that may skip the next day and occur in the early morning of the third day. Thus, on certain days of each month only a single high or a single low water occurs. At some stations, during portions of each month, the tide becomes diurnal—that is, only one high and one low water will occur during the period of a lunar day.

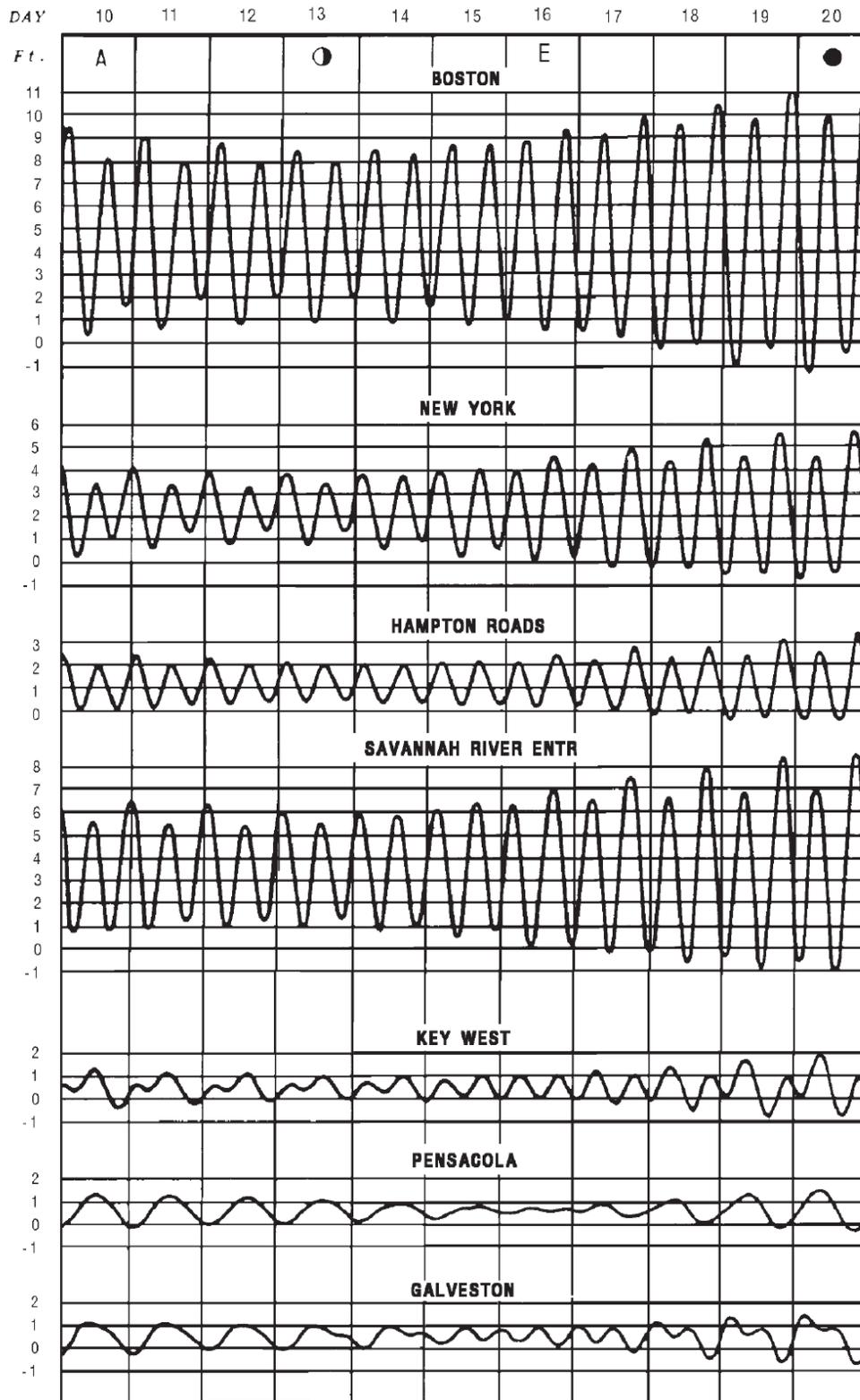
Relation of tide to current.— In using these tables of tide predictions bear in mind that they give the times and heights of high and low waters and not the times of turning of the current or slack water. For stations on the outer coast there is usually a small difference between the time of high or low water and the beginning of ebb or flood current, but for places in narrow channels, landlocked harbors, or on tidal rivers, the time of slack water may differ by several hours from the time of high or low water stand. The relation of the times of high and low water to the turning of the current depends upon a number of factors, so no simple or general rule can be given. For the predicted time of slack water, and other

TABLE 1.—DAILY TIDE PREDICTIONS

current data, reference should be made to the Tidal Current Tables prepared by the National Ocean Service, for the Atlantic and the Pacific coast of North America and Asia.

Typical tide curves.— The variations in the tide from day to day and from place to place are illustrated on the opposite page by the tide curves for representative ports along the Atlantic and Gulf coasts of the United States. Note that the range of tide for stations along the Atlantic coast varies from place to place but that the type is uniformly semidiurnal with the principal variations following the changes in the Moon's distance and phase. In the Gulf of Mexico, however, the type of tide differs considerably and the range of tide is uniformly small. At certain ports such as Pensacola there is usually only one high and one low water a day while at other ports such as Galveston the inequality is such that the tide is semidiurnal around the times the Moon is on the Equator but becomes diurnal around the times of maximum north or south declination of the Moon. In the Gulf of Mexico, consequently, the principal variations in the tide are due to the changing declination of the Moon. Key West, at the entrance to the Gulf of Mexico, has a type of tide which is a mixture of semidiurnal and diurnal types. Here the tide is semidiurnal but there is considerable inequality in the heights of high and low waters. By reference to the curves it will be seen that where the inequality is large there are times when there is only a few tenths of a foot difference between high water and low water.

TYPICAL TIDE CURVES FOR UNITED STATES PORTS



A discussion of these curves is given on the preceding page.

Lunar data: A - Moon in apogee
 ○ - last quarter
 E - Moon on Equator
 ● - new Moon

Argentina, Newfoundland, 2020

Times and Heights of High and Low Waters

October				November				December																
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height											
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm
1 Th	0129	2.3	70		16 F	0106	1.6	50		1 Tu	0205	2.3	70		16 W	0222	2.0	60						
	0807	7.2	220			0733	8.5	260			0846	8.2	250			0921	8.9	270						
	1343	2.0	60			1328	1.3	40			1449	2.6	80			1507	2.0	60						
	2020	7.5	230			2004	8.5	260			2051	7.2	220			2151	7.2	220						
2 F	0158	2.0	60		17 Sa	0144	1.3	40		2 W	0237	2.3	70		17 Th	0307	2.0	60						
	0837	7.5	230			0817	8.9	270			0921	8.2	250			1012	8.5	260						
	1419	1.6	50			1411	1.0	30			1521	2.6	80			1547	2.3	70						
	2048	7.5	230			2047	8.2	250			2128	6.9	210			2242	7.2	220						
3 Sa	0229	2.0	60		18 Su	0222	1.3	40		3 Th	0309	2.6	80		18 F	0351	2.3	70						
	0904	7.5	230			0902	8.9	270			0959	8.2	250			1103	8.2	250						
	1453	1.6	50			1452	1.0	30			1553	2.6	80			1627	2.6	80						
	2115	7.5	230			2131	8.2	250			2209	6.9	210			2336	6.9	210						
4 Su	0259	2.0	60		19 M	0259	1.3	40		4 F	0343	2.6	80		19 Sa	0436	2.6	80						
	0933	7.5	230			0948	8.9	270			1040	7.9	240			1152	7.9	240						
	1526	2.0	60			1533	1.3	40			1627	2.6	80			1709	3.0	90						
	2144	7.2	220			2217	7.5	230			2255	6.9	210											
5 M	0329	2.0	60		20 Tu	0338	1.6	50		5 Sa	0421	3.0	90		20 Su	0031	6.9	210						
	1003	7.5	230			1037	8.5	260			1126	7.9	240			0524	3.0	90						
	1557	2.0	60			1613	1.6	50			1704	3.0	90			1241	7.5	230						
	2214	6.9	210			2312	7.2	220			2348	6.6	200			1757	3.3	100						
6 Tu	0358	2.3	70		21 W	0418	2.0	60		6 Su	0505	3.0	90		21 M	0126	6.6	200						
	1038	7.2	220			1135	8.2	250			1217	7.5	230			0620	3.3	100						
	1628	2.3	70			1654	2.3	70			1750	3.3	100			1332	6.9	210						
	2248	6.9	210													1856	3.6	110						
7 W	0428	2.6	80		22 Th	0019	6.9	210		7 M	0045	6.6	200		22 Tu	0222	6.6	200						
	1117	7.2	220			0502	2.6	80			0559	3.3	100			0730	3.6	110						
	1700	3.0	90			1241	7.5	230			1314	7.2	220			1428	6.6	200						
	2327	6.6	200			1740	3.0	90			1852	3.3	100			2014	3.6	110						
8 Th	0459	2.6	80		23 F	0129	6.6	200		8 Tu	0147	6.9	210		23 W	0319	6.6	200						
	1203	6.9	210			0554	3.0	90			0706	3.3	100			0853	3.6	110						
	1736	3.3	100			1348	7.2	220			1419	7.2	220			1532	6.6	200						
						1949	3.6	110			2021	3.3	100			2125	3.6	110						
9 F	0016	6.2	190		24 Sa	0232	6.2	190		9 W	0252	6.9	210		24 Th	0414	6.9	210						
	0536	3.0	90			0723	3.6	110			0834	3.3	100			1004	3.6	110						
	1259	6.9	210			1453	7.2	220			1530	7.2	220			1633	6.6	200						
	1823	3.6	110			2210	3.6	110			2137	3.0	90			2219	3.6	110						
10 Sa	0123	5.9	180		25 Su	0335	6.2	190		10 Th	0359	7.2	220		25 F	0506	6.9	210						
	0625	3.3	100			0937	3.3	100			0958	3.0	90			1102	3.3	100						
	1408	6.6	200			1559	6.9	210			1640	7.2	220			1726	6.6	200						
	2120	3.6	110			2301	3.3	100			2230	2.6	80			2306	3.3	100						
11 Su	0242	5.9	180		26 M	0440	6.2	190		11 F	0503	7.9	240		26 Sa	0554	7.2	220						
	0749	3.6	110			1033	3.3	100			1105	2.6	80			1154	3.3	100						
	1521	6.6	200			1706	6.9	210			1741	7.2	220			1810	6.6	200						
	2222	3.3	100			2335	3.3	100			2318	2.3	70			2349	3.0	90						
12 M	0356	6.2	190		27 Tu	0540	6.6	200		12 Sa	0600	8.2	250		27 Su	0637	7.5	230						
	1010	3.3	100			1120	3.0	90			1204	2.3	70			1242	3.0	90						
	1634	6.9	210			1802	7.2	220			1835	7.5	230			1847	6.6	200						
	2308	3.0	90			2359	3.0	90																
13 Tu	0501	6.6	200		28 W	0628	6.9	210		13 Su	0004	2.0	60		28 M	0030	3.0	90						
	1108	2.6	80			1203	2.6	80			0652	8.5	260			0716	7.9	240						
	1741	7.2	220			1845	7.2	220			1257	2.0	60			1325	3.0	90						
	2349	2.3	70								1925	7.5	230			1923	6.9	210						
14 W	0558	7.2	220		29 Th	0026	2.6	80		14 M	0050	2.0	60		29 Tu	0108	2.6	80						
	1157	2.3	70			0706	7.2	220			0742	8.9	270			0753	7.9	240						
	1835	7.9	240			1244	2.3	70			1345	2.0	60			1403	2.6	80						
						1920	7.5	230			2013	7.5	230			1959	6.9	210						
15 Th	0028	2.0	60		30 F	0056	2.3	70		15 Tu	0137	2.0	60		30 W	0145	2.6	80						
	0647	7.9	240			0738	7.5	230			0831	8.9	270			0830	8.2	250						
	1244	1.6	50			1321	2.3	70			1427	2.0	60			1438	2.3	70						
	1921	8.2	250			1950	7.5	230			2102	7.5	230			2037	6.9	210						
				31 Sa	0127	2.3	70		15 Th	0132	2.6	80		31 Th	0222	2.3	70							
					0807	7.9	240			0813	7.9	240			0907	8.2	250							
					1357	2.0	60			1414	2.6	80			1511	2.3	70							
					2018	7.5	230			2019	7.2	220			2117	7.2	220							

Time meridian 52° 30' W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
 Heights are referred to the Canadian chart datum of soundings. Subtract 1.9 feet (62 centimeters) to refer these levels to the datum of N.O.S. charts.

Pictou, Nova Scotia, 2020

Times and Heights of High and Low Waters

April				May				June									
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height						
h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm						
1 W 0353 0821 1413 2136	4.6 3.6 5.2 2.0	140 110 160 60	16 Th 0546 1029 1623 2344	4.6 3.9 4.9 2.0	140 120 150 60	1 F 0444 0924 1453 2220	4.6 3.6 5.2 1.6	140 110 160 50	16 Sa 0554 1121 1726	4.9 3.3 4.6	150 100 140	1 M 0551 1145 1808	5.2 2.6 4.9	160 80 150	16 Tu 0613 1242 1909	4.9 2.6 4.6	150 80 140
2 Th 0506 0921 1506 2246	4.6 3.9 5.2 2.0	140 120 160 60	17 F 0648 1147 1751	4.6 3.6 4.9	140 110 150	2 Sa 0541 1044 1626 2327	4.9 3.6 4.9 1.6	150 110 150 50	17 Su 0000 0638 1227 1838	2.3 4.9 3.0 4.6	70 150 90 140	2 Tu 0000 0637 1250 1922	2.3 5.6 2.0 4.9	70 170 60 150	17 W 0040 0649 1331 2007	3.0 5.2 2.0 4.6	90 160 60 140
3 F 0616 1045 1621 2358	4.6 3.9 5.2 1.6	140 120 160 50	18 Sa 0047 0739 1351 1903	2.0 4.6 3.3 4.9	60 140 100 150	3 Su 0633 1200 1807	4.9 3.0 4.9	150 90 150	18 M 0052 0717 1322 1940	2.6 4.9 2.6 4.6	80 150 80 140	3 W 0100 0723 1348 2028	2.6 5.6 1.3 5.2	80 170 40 160	18 Th 0124 0726 1414 2059	3.3 5.2 1.6 4.9	100 160 50 150
4 Sa 0716 1209 1800	4.6 3.6 5.2	140 110 160	19 Su 0140 0817 1351 2003	2.0 4.9 3.0 4.9	60 150 90 150	4 M 0032 0720 1308 1927	2.0 5.2 2.6 5.2	60 160 80 160	19 Tu 0137 0752 1408 2033	2.6 4.9 2.3 4.9	80 150 70 150	4 Th 0157 0809 1441 2128	2.6 5.9 1.0 5.6	80 180 30 170	19 F 0206 0804 1454 2147	3.3 5.2 1.6 4.9	100 160 50 150
5 Su 0105 0806 1322 1929	1.6 4.0 3.0 5.6	50 150 90 170	20 M 0224 0850 1436 2054	2.3 4.9 2.6 4.9	70 150 80 150	5 Tu 0131 0805 1406 2034	2.0 5.6 1.6 5.6	60 170 50 170	20 W 0216 0824 1447 2121	3.0 5.2 2.0 4.9	90 160 60 150	5 F 0249 0855 1531 2225	3.0 5.9 0.3 5.6	90 180 10 170	20 Sa 0247 0842 1533 2233	3.6 5.6 1.3 4.9	110 170 40 150
6 M 0203 0849 1422 2039	1.3 5.2 2.3 5.6	40 160 70 170	21 Tu 0302 0919 1515 2139	2.3 4.9 2.3 5.2	70 150 70 160	6 W 0225 0847 1458 2134	2.0 5.6 1.0 5.6	60 170 30 170	21 Th 0252 0855 1522 2205	3.0 5.2 1.6 4.9	90 160 50 150	6 Sa 0338 0940 1620 2318	3.0 6.2 0.3 5.6	90 190 10 170	21 Su 0328 0921 1612 ● 2317	3.6 5.6 1.0 5.2	110 170 30 160
7 Tu 0254 0929 1515 2139	1.3 5.6 1.6 5.9	40 170 50 180	22 W 0334 0947 1550 ● 2221	2.6 5.2 2.0 5.2	80 160 60 160	7 Th 0314 0929 1547 ● 2229	2.3 5.9 0.7 5.9	70 180 20 180	22 F 0326 0926 1556 ● 2248	3.3 5.6 1.3 5.2	100 170 40 160	7 Su 0425 1024 1708	3.3 6.2 0.3	100 190 10	22 M 0409 1001 1652	3.6 5.9 1.0	110 180 30
8 W 0341 1008 1604 2234	1.6 5.9 1.3 5.9	50 180 40 180	23 Th 0404 1013 1623 2301	2.6 5.2 1.6 5.2	80 160 50 160	8 F 0401 1009 1633 2323	2.3 6.2 0.3 5.9	70 190 10 180	23 Sa 0400 0956 1631 2331	3.3 5.6 1.0 5.2	100 170 30 160	8 M 0011 0512 1108 1756	5.6 3.3 5.9 0.7	170 100 180 20	23 Tu 0001 0452 1043 1734	5.2 3.6 5.9 0.7	160 110 180 20
9 Th 0426 1046 1651 2328	1.6 5.9 0.7 5.9	50 180 40 180	24 F 0434 1039 1655 2341	3.0 5.2 1.3 5.2	90 160 40 160	9 Sa 0446 1049 1720	2.6 6.2 0.3	80 190 10	24 Su 0435 1028 1708	3.3 5.6 1.0	100 170 30	9 Tu 0102 0558 1152 1846	5.2 3.3 5.9 0.7	160 100 180 20	24 W 0044 0536 1127 1817	5.2 3.3 5.9 1.0	160 100 180 30
10 F 0510 1124 1737	2.0 5.9 0.7	60 180 20	25 Sa 0504 1104 1728	3.0 5.6 1.3	90 170 40	10 Su 0017 0531 1129 1807	5.6 3.0 5.9 0.3	170 90 180 10	25 M 0014 0512 1100 1746	5.2 3.3 5.6 1.0	160 100 170 30	10 W 0153 0645 1238 1937	5.2 3.3 5.6 1.3	160 100 170 40	25 Th 0128 0623 1214 1902	5.2 3.3 5.9 1.0	160 100 180 30
11 Sa 0022 0553 1201 1823	5.9 2.3 5.9 0.7	180 70 180 20	26 Su 0022 0536 1131 1804	5.2 3.3 5.6 1.3	160 100 170 40	11 M 0113 0616 1209 1857	5.6 3.3 5.9 0.7	170 100 180 20	26 Tu 0058 0551 1135 1828	5.2 3.6 5.6 1.0	160 110 170 30	11 Th 0243 0736 1328 2030	4.9 3.3 5.2 1.6	150 100 160 50	26 F 0212 0713 1307 1950	5.2 3.3 5.6 1.3	160 100 170 40
12 Su 0118 0637 1238 1913	5.6 3.0 5.9 0.7	170 90 180 20	27 M 0105 0609 1159 1842	4.9 3.3 5.6 1.3	150 100 170 40	12 Tu 0211 0704 1250 1953	5.2 3.6 5.6 1.0	160 110 170 30	27 W 0145 0633 1214 1913	4.9 3.6 5.6 1.0	150 110 170 30	12 F 0331 0831 1426 2124	4.9 3.3 4.9 2.0	150 100 150 60	27 Sa 0256 0808 1409 2041	5.2 3.0 5.2 1.6	160 90 160 50
13 M 0220 0722 1316 2009	5.2 3.3 5.6 1.0	160 100 170 30	28 Tu 0151 0645 1230 1926	4.9 3.6 5.6 1.3	150 110 170 40	13 W 0311 0756 1337 2055	4.9 3.6 5.2 1.3	150 110 160 40	28 Th 0235 0721 1258 2003	4.9 3.6 5.6 1.3	150 110 170 40	13 Sa 0416 0933 1536 ● 2215	4.9 3.3 4.6 2.3	150 100 140 70	28 Su 0340 0909 1523 ● 2134	5.2 2.6 4.9 2.0	160 80 150 60
14 Tu 0328 0813 1357 ● 2116	4.9 3.6 5.6 1.3	150 110 170 40	29 W 0244 0726 1306 2016	4.9 3.6 5.6 1.3	150 110 170 40	14 Th 0410 0856 1438 ● 2201	4.9 3.6 4.9 1.6	150 110 150 50	29 F 0326 0817 1354 ● 2058	4.9 3.6 5.2 1.3	150 110 160 40	14 Su 0457 1040 1652 2305	4.9 3.0 4.6 2.6	150 90 140 80	29 M 0425 1016 1644 2232	5.2 2.3 4.9 2.3	160 70 150 70
15 W 0438 0914 1453 2232	4.9 3.6 5.2 1.6	150 110 160 50	30 Th 0344 0817 1351 ● 2114	4.6 3.6 5.2 1.6	140 110 160 50	15 F 0505 1007 1603 2304	4.9 3.6 4.9 2.0	150 110 150 60	30 Sa 0416 0922 1509 2157	4.9 3.3 4.9 1.6	150 100 150 50	15 M 0536 1145 1804 2353	4.9 3.0 4.6 3.0	150 90 140 90	30 Tu 0511 1126 1803 2332	5.6 2.0 4.9 2.6	170 60 150 80
								31 Su 0504 1034 1642 2259	5.2 3.0 4.9 2.0	160 90 150 60							

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the Canadian chart datum of soundings.

Pictou, Nova Scotia, 2020

Times and Heights of High and Low Waters

July				August				September											
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height						
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm					
1 W	0559	5.6	170		16 Th	0542	5.2	160		1 Sa	0114	3.6	110						
	1232	1.6	50			0723	5.9	180			16 Su	0040	3.6	110					
	1916	4.9	150			1424	1.0	30				0635	5.6	170					
2 Th	0033	3.0	90		17 F	0029	3.6	110		2 Su	0212	3.6	110		1 Tu	0253	3.3	100	
	0649	5.6	170			0627	5.2	160			0821	5.9	180			0908	5.9	180	
	1333	1.3	40			1339	2.0	60			1518	1.0	30			1551	1.3	40	
3 F	0132	3.3	100		18 Sa	0120	3.6	110		3 M	0305	3.3	100		2 W	0955	5.9	180	
	0740	5.9	180			0716	5.6	170			0914	5.9	180			1629	1.3	40	
	1430	1.0	30			1427	1.6	50			1606	1.0	30			2300	5.2	160	
4 Sa	0227	3.3	100		19 Su	0211	3.6	110		4 Tu	0353	3.3	100		3 Th	0420	2.6	80	
	0832	5.9	180			0806	5.6	170			1003	5.9	180			1039	5.9	180	
	1523	0.7	20			1512	1.3	40			1650	1.0	30			1704	1.6	50	
5 Su	0319	3.3	100		20 M	0259	3.6	110		5 W	0438	3.0	90		4 F	0459	2.3	70	
	0922	6.2	190			0856	5.9	180			1049	5.9	180			1120	5.6	170	
	1613	0.7	20			1555	1.0	30			1730	1.0	30			1737	2.0	60	
6 M	0408	3.3	100		21 Tu	0347	3.3	100		6 Th	0011	5.2	160		5 Sa	0536	2.3	70	
	1011	6.2	190			0946	5.9	180			0520	3.0	90			1201	5.6	170	
	1700	0.7	20			1637	1.0	30			1133	5.9	180			1807	2.3	70	
7 Tu	0454	3.3	100		22 W	0434	3.3	100		7 F	0044	5.2	160		6 Su	0024	5.2	160	
	1058	5.9	180			1035	6.2	190			0601	2.6	80			0611	2.3	70	
	1747	0.7	20			1720	0.7	20			1216	5.6	170			1241	5.2	160	
8 W	0042	5.2	160		23 Th	0018	5.2	160		8 Sa	0116	4.9	150		7 M	0049	5.2	160	
	0540	3.3	100			0521	3.0	90			0641	2.6	80			0647	2.0	60	
	1143	5.9	180			1126	6.2	190			1259	5.2	160			1323	5.2	160	
9 Th	0124	5.2	160		24 F	0057	5.2	160		9 Su	0146	4.9	150		8 Tu	0113	5.2	160	
	0625	3.3	100			0609	2.6	80			0722	2.6	80			0725	2.0	60	
	1229	5.6	170			1217	5.9	180			1343	4.9	150			1408	4.9	150	
10 F	0204	4.9	150		25 Sa	0137	5.6	170		10 M	0214	4.9	150		9 W	0139	5.2	160	
	0710	3.0	90			0658	2.6	80			0805	2.6	80			0807	2.3	70	
	1316	5.2	160			1313	5.9	180			1433	4.9	150			1502	4.6	140	
11 Sa	0242	4.9	150		26 Su	0218	5.6	170		11 Tu	0242	4.9	150		10 Th	0210	5.2	160	
	0758	3.0	90			0751	2.3	70			0853	2.6	80			0857	2.3	70	
	1406	4.9	150			1413	5.6	170			1533	4.6	140			1609	4.6	140	
12 Su	0318	4.9	150		27 M	0259	5.6	170		12 W	0313	4.9	150		11 F	0248	5.2	160	
	0849	3.0	90			0849	2.0	60			0949	2.3	70			0959	2.3	70	
	1504	4.6	140			1523	5.2	160			1643	4.6	140			1723	4.6	140	
13 M	0353	4.9	150		28 Tu	0344	5.6	170		13 Th	0350	5.2	160		12 Sa	0338	5.2	160	
	0947	3.0	90			0954	2.0	60			1053	2.3	70			1112	2.3	70	
	1612	4.6	140			1640	4.9	150			1755	4.3	130			1835	4.6	140	
14 Tu	0427	4.9	150		29 W	0433	5.6	170		14 F	0436	5.2	160		13 Su	0444	5.2	160	
	1050	2.6	80			1106	1.6	50			1200	2.3	70			1223	2.0	60	
	1724	4.3	130			1758	4.9	150			1904	4.6	140			1939	4.6	140	
15 W	0503	4.9	150		30 Th	0526	5.6	170		15 Sa	0532	5.2	160		14 M	0012	3.9	120	
	1152	2.3	70			1217	1.3	40			1303	2.0	60			0605	5.2	160	
	1832	4.3	130			1912	4.9	150			2009	4.6	140			1326	1.6	50	
16 Th	2336	3.3	100		31 F	0011	3.3	100		16 Su	0201	3.6	110		15 Tu	0120	3.6	110	
						0624	5.6	170			0715	5.6	170			0723	5.6	170	
						1324	1.3	40			1417	1.3	40			1419	1.6	50	
				2022	4.9	150							2111	4.9	150				

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the Canadian chart datum of soundings.

Quebec, Quebec, 2020

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	h m	ft	h m	ft	h m	ft	h m	ft	h m	ft
1 W	0527 1.3 40 1009 12.5 380 1721 2.0 60 2218 13.5 410	16 Th	0545 0.7 20 1024 14.1 430 1757 1.0 30 2245 14.8 450	1 Sa	0554 1.6 50 1103 12.8 390 1821 2.0 60 2321 11.5 350	16 Su	0642 1.3 40 1151 14.4 440 1936 1.3 40	1 Su	0509 1.6 50 1006 14.1 430 1745 1.6 50 2230 12.1 370	16 M	0603 1.6 50 1115 14.8 450 1909 1.6 50
2 Th	0603 1.3 40 1109 12.1 370 1809 2.3 70 2318 12.5 380	17 F	0630 1.0 30 1121 14.1 430 1854 1.3 40 2348 13.5 410	2 Su	0630 2.0 60 1154 12.5 380 1918 2.3 70	17 M	0039 11.8 360 0733 1.6 50 1300 13.8 420 2048 1.3 40	2 M	0539 2.0 60 1054 13.5 410 1833 2.0 60 2330 11.2 340	17 Tu	0009 11.5 350 0657 2.3 70 1227 13.8 420 2021 1.6 50
3 F	0648 1.6 50 1209 11.8 360 1912 2.3 70	18 Sa	0721 1.0 30 1230 14.1 430 2003 1.3 40	3 M	0027 10.5 320 0718 2.3 70 1257 12.5 380 2030 2.0 60	18 Tu	0200 11.2 340 0839 2.0 60 1412 13.8 420 2200 1.3 40	3 Tu	0624 2.3 70 1154 13.1 400 1939 2.0 60	18 W	0139 11.2 340 0812 2.6 80 1348 13.5 410 2136 1.6 50
4 Sa	0024 11.5 350 0739 2.0 60 1309 12.1 370 2021 2.3 70	19 Su	0100 12.5 380 0815 1.3 40 1336 14.1 430 2115 1.3 40	4 Tu	0148 10.2 310 0818 2.3 70 1403 12.8 380 2142 1.6 50	19 W	0315 11.5 350 0951 2.0 60 1524 14.4 440 2312 1.0 30	4 W	0045 10.5 320 0724 2.6 80 1309 13.1 400 2103 1.6 50	19 Th	0254 11.5 350 0933 2.3 70 1503 14.1 430 2248 1.3 40
5 Su	0133 11.2 340 0833 2.0 60 1409 12.8 390 2133 2.0 60	20 M	0224 12.1 370 0915 1.3 40 1442 14.4 440 2224 1.0 30	5 W	0257 10.5 320 0927 2.0 60 1503 13.8 420 2251 1.3 40	20 Th	0418 12.1 370 1100 1.6 50 1618 15.1 460	5 Th	0215 10.5 320 0848 2.3 70 1424 14.1 430 2221 1.3 40	20 F	0400 12.5 380 1045 2.0 60 1606 14.8 450 2342 1.3 40
6 M	0239 11.5 350 0930 2.0 60 1500 13.5 410 2233 1.6 50	21 Tu	0333 12.1 370 1018 1.3 40 1542 15.1 460 2330 1.0 30	6 Th	0351 11.2 340 1036 1.6 50 1600 14.8 450 2354 1.0 30	21 F	0009 1.0 30 0509 12.8 390 1200 1.3 40 1712 15.7 480	6 F	0327 11.5 350 1009 2.0 60 1530 15.1 460 2330 1.0 30	21 Sa	0448 13.1 400 1142 1.6 50 1651 15.4 470
7 Tu	0336 11.8 360 1024 2.0 60 1548 14.4 440 2336 1.3 40	22 W	0430 12.5 380 1118 1.3 40 1636 15.7 480	7 F	0445 12.1 370 1139 1.3 40 1651 16.1 490	22 Sa	0100 1.0 30 0551 13.5 410 1251 1.3 40 1751 15.7 480	7 Sa	0421 12.8 390 1124 1.3 40 1630 16.4 500	22 Su	0030 1.3 40 0527 14.1 430 1233 1.6 50 1736 15.7 480
8 W	0424 12.1 370 1115 1.6 50 1636 15.4 470	23 Th	0027 1.0 30 0521 12.8 390 1212 1.3 40 1724 16.1 490	8 Sa	0051 0.7 20 0533 13.1 400 1239 1.0 30 1742 17.1 520	23 Su	0139 1.0 30 0624 13.8 420 1336 1.0 30 1836 16.1 490	8 Su	0027 0.7 20 0509 14.1 430 1227 0.7 20 1721 17.4 530	23 M	0109 1.3 40 0600 14.8 450 1315 1.3 40 1809 15.7 480
9 Th	0024 1.0 30 0512 12.8 390 1209 1.3 40 1718 16.1 490	24 F	0118 1.0 30 0603 12.8 390 1303 1.3 40 1812 16.1 490	9 Su	0142 0.7 20 0615 13.8 420 1333 0.7 20 1827 17.4 530	24 M	0218 1.0 30 0657 14.1 430 1415 1.0 30 1909 15.7 480	9 M	0118 0.7 20 0551 15.4 470 1324 0.7 20 1809 17.7 540	24 Tu	0142 1.3 40 0630 15.4 470 1354 1.3 40 1839 15.7 480
10 F	0112 1.0 30 0554 13.1 400 1257 1.0 30 1800 16.7 510	25 Sa	0200 1.0 30 0648 12.8 390 1348 1.0 30 1854 16.1 490	10 M	0227 0.7 20 0700 14.4 440 1427 0.7 20 1915 17.7 540	25 Tu	0254 1.0 30 0730 14.4 440 1457 1.0 30 1939 15.7 480	10 Tu	0206 0.7 20 0639 16.1 490 1418 0.7 20 1857 18.0 550	25 W	0215 1.3 40 0700 15.7 480 1433 1.3 40 1912 15.7 480
11 Sa	0157 1.0 30 0636 13.5 410 1345 1.0 30 1845 17.1 520	26 Su	0242 1.0 30 0724 13.1 400 1433 1.0 30 1927 16.1 490	11 Tu	0312 0.7 20 0742 15.1 460 1518 0.7 20 2000 17.4 530	26 W	0324 1.0 30 0754 14.8 450 1530 1.0 30 2009 15.7 480	11 W	0251 0.7 20 0718 17.1 520 1509 0.7 20 1939 17.7 540	26 Th	0248 1.3 40 0727 15.7 480 1512 1.3 40 1939 15.4 470
12 Su	0242 1.0 30 0718 13.8 420 1433 0.7 20 1930 17.4 530	27 M	0318 1.0 30 0751 13.5 410 1509 1.0 30 2000 15.7 480	12 W	0400 0.7 20 0827 15.7 480 1606 0.7 20 2042 17.1 520	27 Th	0351 1.0 30 0827 15.1 460 1600 1.0 30 2036 15.1 460	12 Th	0333 0.7 20 0757 17.4 530 1554 0.7 20 2021 17.1 520	27 F	0318 1.3 40 0751 16.1 490 1542 1.3 40 2006 15.1 460
13 M	0333 1.0 30 0803 13.8 420 1524 0.7 20 2015 17.1 520	28 Tu	0351 1.0 30 0821 13.8 420 1545 1.0 30 2033 15.4 470	13 Th	0439 0.7 20 0906 15.7 480 1651 0.7 20 2124 16.1 490	28 F	0415 1.0 30 0851 15.1 460 1630 1.3 40 2106 14.4 440	13 F	0409 1.0 30 0839 17.4 530 1639 1.0 30 2103 16.1 490	28 Sa	0342 1.3 40 0818 16.1 490 1612 1.3 40 2036 14.4 440
14 Tu	0421 0.7 20 0842 14.1 430 1615 0.7 20 2100 16.7 510	29 W	0421 1.0 30 0900 13.5 410 1621 1.3 40 2106 14.8 450	14 F	0515 0.7 20 0954 15.7 480 1742 1.0 30 2218 14.8 450	29 Sa	0442 1.3 40 0930 14.8 450 1706 1.3 40 2145 13.5 410	14 Sa	0445 1.0 30 0924 17.1 520 1721 1.0 30 2151 14.8 450	29 Su	0406 1.6 50 0848 15.7 480 1642 1.6 50 2109 13.8 420
15 W	0503 0.7 20 0930 14.1 430 1703 1.0 30 2145 15.7 480	30 Th	0451 1.0 30 0936 13.5 410 1654 1.6 50 2145 13.8 420	15 Sa	0557 1.0 30 1048 15.1 460 1833 1.3 40 2321 13.1 400			15 Su	0521 1.3 40 1015 16.1 490 1812 1.3 40 2254 13.1 400	30 M	0433 2.0 60 0924 15.4 470 1721 2.0 60 2154 12.8 390
		31 F	0521 1.3 40 1015 13.1 400 1733 2.0 60 2227 12.8 390							31 Tu	0506 2.3 70 1009 14.4 440 1806 2.3 70 2248 11.8 360

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the Canadian chart datum of soundings.

Halifax, Nova Scotia, 2020

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	h m	ft	h m	ft	h m	ft	h m	ft	h m	ft
1 Th	0151 1.3 40 0745 5.9 180 1411 1.6 50 1958 5.9 180	16 F	0116 0.7 20 0714 6.9 210 1351 0.7 20 1938 6.6 200	1 Su	0222 1.6 50 0819 5.9 180 1443 1.3 40 2048 5.9 180	16 M	0239 1.0 30 0822 7.2 220 1514 0.3 10 2100 6.6 200	1 Tu	0229 2.3 70 0823 6.2 190 1457 1.3 40 2102 5.9 180	16 W	0316 1.6 50 0851 6.9 210 1550 0.7 20 2135 6.2 190
2 F	0223 1.3 40 0819 5.9 180 1441 1.6 50 2036 5.9 180	17 Sa	0206 0.7 20 0759 7.2 220 1442 0.3 10 2027 6.6 200	2 M	0254 2.0 60 0852 5.9 180 1516 1.3 40 2124 5.9 180	17 Tu	0332 1.3 40 0909 6.9 210 1607 0.7 20 2150 6.6 200	2 W	0305 2.3 70 0859 6.2 190 1537 1.3 40 2139 5.6 170	17 Th	0408 2.0 60 0939 6.9 210 1641 1.0 30 2223 6.2 190
3 Sa	0253 1.6 50 0853 5.9 180 1511 1.6 50 2112 5.9 180	18 Su	0257 0.7 20 0846 7.2 220 1533 0.3 10 2117 6.6 200	3 Tu	0326 2.3 70 0925 5.9 180 1553 1.6 50 2159 5.6 170	18 W	0427 1.6 50 0957 6.9 210 1702 0.7 20 2240 6.2 190	3 Th	0343 2.3 70 0936 6.2 190 1620 1.3 40 2217 5.6 170	18 F	0501 2.3 70 1026 6.6 200 1732 1.3 40 2311 5.9 180
4 Su	0322 1.6 50 0926 5.9 180 1543 1.6 50 2149 5.9 180	19 M	0349 1.0 30 0932 6.9 210 1627 0.7 20 2206 6.6 200	4 W	0402 2.3 70 0959 5.9 180 1636 1.6 50 2236 5.6 170	19 Th	0526 2.0 60 1045 6.6 200 1759 1.0 30 2331 5.9 180	4 F	0428 2.6 80 1015 6.2 190 1708 1.6 50 2258 5.6 170	19 Sa	0557 2.3 70 1114 6.2 190 1823 1.6 50 2359 5.9 180
5 M	0353 2.0 60 0959 5.9 180 1618 1.6 50 2225 5.6 170	20 Tu	0446 1.3 40 1018 6.9 210 1724 0.7 20 2257 6.2 190	5 Th	0445 2.6 80 1036 5.9 180 1726 1.6 50 2316 5.6 170	20 F	0628 2.3 70 1136 6.2 190 1857 1.3 40	5 Sa	0522 2.6 80 1058 5.9 180 1801 1.6 50 2343 5.6 170	20 Su	0655 2.6 80 1203 5.9 180 1913 1.6 50
6 Tu	0427 2.3 70 1032 5.9 180 1700 1.6 50 2301 5.6 170	21 W	0547 2.0 60 1106 6.6 200 1824 1.0 30 2349 5.9 180	6 F	0540 2.6 80 1117 5.6 170 1823 2.0 60	21 Sa	0025 5.6 170 0730 2.6 80 1231 5.6 170 1954 1.6 50	6 Su	0624 2.6 80 1146 5.9 180 1855 1.6 50	21 M	0049 5.6 170 0753 2.6 80 1256 5.2 160 2001 2.0 60
7 W	0509 2.3 70 1107 5.6 170 1751 2.0 60 2340 5.2 160	22 Th	0652 2.3 70 1157 5.9 180 1925 1.3 40	7 Sa	0001 5.2 160 0645 2.6 80 1204 5.6 170 1922 2.0 60	22 Su	0125 5.6 170 0831 2.6 80 1334 5.2 160 2048 2.0 60	7 M	0033 5.6 170 0728 2.3 70 1240 5.6 170 1950 1.6 50	22 Tu	0142 5.6 170 0848 2.6 80 1356 5.2 160 2049 2.3 70
8 Th	0604 2.6 80 1145 5.6 170 1850 2.0 60	23 F	0047 5.6 170 0756 2.3 70 1256 5.6 170 2025 1.6 50	8 Su	0054 5.2 160 0750 2.6 80 1301 5.2 160 2019 2.0 60	23 M	0232 5.6 170 0929 2.6 80 1445 5.2 160 2139 2.0 60	8 Tu	0129 5.6 170 0830 2.3 70 1344 5.6 170 2045 1.6 50	23 W	0240 5.6 170 0941 2.3 70 1502 4.9 150 2138 2.3 70
9 F	0025 4.9 150 0708 2.6 80 1231 5.2 160 1950 2.0 60	24 Sa	0154 5.2 160 0858 2.3 70 1405 5.2 160 2123 1.6 50	9 M	0157 5.2 160 0852 2.3 70 1411 5.2 160 2115 1.6 50	24 Tu	0338 5.6 170 1024 2.3 70 1556 5.2 160 2229 2.0 60	9 W	0232 5.9 180 0930 2.0 60 1456 5.2 160 2141 1.6 50	24 Th	0339 5.6 170 1030 2.3 70 1609 4.9 150 2227 2.3 70
10 Sa	0120 4.9 150 0813 2.6 80 1328 5.2 160 2049 2.0 60	25 Su	0314 5.2 160 0959 2.3 70 1526 5.2 160 2219 1.6 50	10 Tu	0307 5.6 170 0952 2.0 60 1526 5.2 160 2210 1.3 40	25 W	0433 5.6 170 1114 2.0 60 1655 5.2 160 2316 2.0 60	10 Th	0336 6.2 190 1029 1.6 50 1607 5.6 170 2239 1.3 40	25 F	0433 5.6 170 1116 2.0 60 1707 5.2 160 2317 2.3 70
11 Su	0228 4.9 150 0914 2.6 80 1440 5.2 160 2146 1.6 50	26 M	0425 5.6 170 1056 2.3 70 1637 5.2 160 2311 1.6 50	11 W	0412 5.9 180 1050 1.6 50 1635 5.6 170 2304 1.3 40	26 Th	0520 5.9 180 1158 2.0 60 1744 5.2 160	11 F	0435 6.2 190 1127 1.0 30 1711 5.9 180 2337 1.3 40	26 Sa	0520 5.6 170 1159 2.0 60 1757 5.2 160
12 M	0344 5.2 160 1014 2.3 70 1556 5.2 160 2240 1.3 40	27 Tu	0516 5.6 170 1147 2.0 60 1730 5.6 170 2358 1.6 50	12 Th	0507 6.2 190 1147 1.0 30 1734 5.9 180 2359 1.0 30	27 F	0001 2.0 60 0600 5.9 180 1237 1.6 50 1828 5.6 170	12 Sa	0531 6.6 200 1223 0.7 20 1809 5.9 180	27 Su	0004 2.3 70 0603 5.9 180 1239 1.6 50 1842 5.6 170
13 Tu	0447 5.6 170 1111 1.6 50 1701 5.6 170 2334 1.0 30	28 W	0559 5.9 180 1231 2.0 60 1815 5.6 170	13 F	0558 6.6 200 1241 0.7 20 1828 6.2 190	28 Sa	0042 2.0 60 0638 5.9 180 1311 1.6 50 1908 5.6 170	13 Su	0035 1.3 40 0623 6.9 210 1316 0.7 20 1903 6.2 190	28 M	0048 2.3 70 0642 5.9 180 1319 1.3 40 1924 5.6 170
14 W	0540 5.9 180 1207 1.3 40 1756 5.9 180	29 Th	0040 1.6 50 0636 5.9 180 1309 1.6 50 1855 5.9 180	14 Sa	0053 1.0 30 0646 6.9 210 1332 0.3 10 1919 6.6 200	29 Su	0119 2.0 60 0714 5.9 180 1345 1.3 40 1947 5.9 180	14 M	0131 1.3 40 0713 6.9 210 1408 0.3 10 1955 6.2 190	29 Tu	0128 2.3 70 0721 5.9 180 1359 1.3 40 2003 5.6 170
15 Th	0025 0.7 20 0628 6.6 200 1259 1.0 30 1848 6.2 190	30 F	0117 1.6 50 0712 5.9 180 1342 1.6 50 1934 5.9 180	15 Su	0146 1.0 30 0734 7.2 220 1423 0.3 10 2010 6.6 200	30 M	0155 2.0 60 0748 5.9 180 1420 1.3 40 2025 5.9 180	15 Tu	0224 1.3 40 0803 6.9 210 1459 0.3 10 2046 6.2 190	30 W	0206 2.3 70 0759 6.2 190 1439 1.0 30 2042 5.6 170
		31 Sa	0151 1.6 50 0746 5.9 180 1413 1.3 40 2011 5.9 180							31 Th	0245 2.3 70 0837 6.2 190 1521 1.0 30 2121 5.9 180

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the Canadian chart datum of soundings.

Saint John, New Brunswick, 2020

Times and Heights of High and Low Waters

January				February				March							
Day	Time		Height	Day	Time		Height	Day	Time		Height	Day	Time		Height
	h m	ft			h m	ft			h m	ft			h m	ft	
1 W	0346	23.3	710	16 Th	0341	25.9	790	1 Sa	0434	23.0	700	16 Su	0516	25.6	780
	0959	6.6	200		0957	3.6	110		1050	6.6	200		1138	3.9	120
	1605	23.3	710		1606	25.9	790	○	1657	22.3	680		1751	24.3	740
	2223	5.9	180		2226	3.0	90		2311	6.6	200				
2 Th	0435	23.0	700	17 F	0439	25.6	780	2 Su	0523	22.6	690	17 M	0006	4.9	150
	1049	6.9	210		1057	3.9	120		1141	6.9	210		0621	24.9	760
	1656	22.6	690	○	1707	25.3	770		1751	21.7	660		1244	4.3	130
	2312	6.2	190		2326	3.6	110						1859	23.6	720
3 F	0526	22.6	690	18 Sa	0540	25.3	770	3 M	0004	7.2	220	18 Tu	0112	5.6	170
○	1142	7.2	220		1201	4.3	130		0617	22.6	690		0726	24.6	750
	1750	22.3	680		1812	24.3	740		1238	6.9	210		1350	4.6	140
									1848	21.7	660		2005	23.3	710
4 Sa	0005	6.9	210	19 Su	0028	4.3	130	4 Tu	0100	7.2	220	19 W	0217	5.6	170
	0619	22.6	690		0643	25.3	770		0714	22.6	690		0830	24.6	750
	1236	7.2	220		1306	4.3	130		1337	6.6	200		1452	4.6	140
	1846	22.0	670		1918	24.0	730		1947	21.7	660		2107	23.3	710
5 Su	0058	6.9	210	20 M	0132	4.6	140	5 W	0158	6.9	210	20 Th	0316	5.6	170
	0712	22.6	690		0746	25.3	770		0810	23.3	710		0928	24.9	760
	1331	6.9	210		1409	3.9	120		1434	5.6	170		1549	4.3	130
	1941	22.0	670		2022	24.0	730		2044	22.3	680		2201	23.6	720
6 M	0151	6.9	210	21 Tu	0234	4.9	150	6 Th	0254	6.2	190	21 F	0409	5.2	160
	0804	23.0	700		0847	25.6	780		0904	24.3	740		1020	25.3	770
	1423	6.2	190		1509	3.6	110		1527	4.6	140		1638	3.9	120
	2033	22.3	680		2122	24.3	740		2137	23.3	710		2249	24.0	730
7 Tu	0242	6.6	200	22 W	0331	4.6	140	7 F	0346	5.2	160	22 Sa	0457	4.9	150
	0853	24.0	730		0943	25.6	780		0956	25.6	780		1105	25.6	780
	1513	5.2	160		1604	3.3	100		1618	3.3	100		1723	3.6	110
	2123	22.6	690		2217	24.3	740		2227	24.6	750		2331	24.3	740
8 W	0330	5.9	180	23 Th	0425	4.6	140	8 Sa	0437	3.9	120	23 Su	0539	4.6	140
	0939	24.6	750		1034	25.9	790		1045	26.6	810		1147	25.6	780
	1559	4.6	140		1655	3.3	100		1706	2.3	70	●	1802	3.6	110
	2209	23.6	720		2306	24.6	750		2315	25.6	780				
9 Th	0416	5.2	160	24 F	0513	4.6	140	9 Su	0525	3.0	90	24 M	0010	24.6	750
	1024	25.6	780		1121	26.2	800		1134	27.6	840		0618	4.3	130
	1645	3.6	110	●	1741	3.3	100	○	1754	1.3	40		1225	25.6	780
	2254	24.3	740		2350	24.6	750						1839	3.6	110
10 F	0501	4.6	140	25 Sa	0558	4.6	140	10 M	0002	26.6	810	25 Tu	0045	24.9	760
	1108	26.2	800		1205	26.2	800		0613	2.0	60		0655	4.3	130
○	1730	2.6	80		1823	3.3	100		1222	28.2	860		1301	25.6	780
	2338	24.9	760						1841	0.7	20		1914	3.6	110
11 Sa	0546	3.9	120	26 Su	0031	24.6	750	11 Tu	0049	27.2	830	26 W	0120	24.9	760
	1153	26.9	820		0639	4.6	140		0702	1.6	50		0731	4.3	130
	1814	2.0	60		1246	25.9	790		1310	28.5	870		1337	25.3	770
					1903	3.6	110		1929	0.7	20		1949	3.9	120
12 Su	0022	25.6	780	27 M	0111	24.6	750	12 W	0137	27.6	840	27 Th	0155	24.9	760
	0632	3.3	100		0719	4.6	140		0751	1.6	50		0807	4.6	140
	1239	27.6	840		1325	25.6	780		1359	28.2	860		1413	24.9	760
	1900	1.6	50		1942	3.6	110		2018	1.0	30		2024	4.6	140
13 M	0108	25.9	790	28 Tu	0149	24.6	750	13 Th	0227	27.6	840	28 F	0230	24.6	750
	0719	3.0	90		0759	4.9	150		0843	1.6	50		0843	4.9	150
	1327	27.6	840		1404	25.3	770		1452	27.2	830		1449	24.3	740
	1948	1.6	50		2020	4.3	130		2109	1.6	50		2101	4.9	150
14 Tu	0156	26.2	800	29 W	0227	24.3	740	14 F	0319	26.9	820	29 Sa	0308	24.3	740
	0809	3.0	90		0838	5.2	160		0938	2.3	70		0922	5.2	160
	1417	27.2	830		1444	24.6	750		1547	26.2	800		1529	23.3	710
	2038	2.0	60		2059	4.6	140		2204	3.0	90		2141	5.6	170
15 W	0247	26.2	800	30 Th	0307	24.0	730	15 Sa	0416	26.2	800	15 Su	0352	26.6	810
	0901	3.3	100		0919	5.6	170	○	1036	3.3	100		1013	3.0	90
	1509	26.6	810		1525	24.0	730		1647	25.3	770		1626	24.9	760
	2130	2.3	70		2140	5.2	160		2303	3.9	120		2240	4.6	140
				31 F	0349	23.6	720					31 Tu	0359	24.0	730
					1002	6.2	190						1021	5.6	170
					1609	23.0	700						1630	22.6	690
					2223	5.9	180						2243	6.9	210

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the Canadian chart datum of soundings.

Saint John, New Brunswick, 2020

Times and Heights of High and Low Waters

July				August				September							
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height		
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm	
1 W	0149	3.3	100	16 Th	0209	6.2	190	1 Sa	0333	3.0	90	16 Su	0313	4.9	150
	0759	24.9	760		0820	22.0	670		0946	24.3	740		0924	23.0	700
	1413	3.6	110		1428	6.6	200		1555	4.3	130		1531	5.9	180
	2026	26.6	810		2039	23.6	720		2206	26.2	800		2141	24.9	760
2 Th	0249	2.6	80	17 F	0259	5.6	170	2 Su	0428	3.0	90	17 M	0402	3.9	120
	0859	25.3	770		0911	22.3	680		1040	24.6	750		1012	24.0	730
	1511	3.6	110		1517	6.2	190		1648	4.3	130		1620	4.9	150
	2123	26.9	820		2127	24.0	730		2258	26.2	800		2229	25.9	790
3 F	0346	2.3	70	18 Sa	0347	4.9	150	3 M	0519	3.0	90	18 Tu	0449	3.0	90
	0957	25.3	770		0958	23.0	700		1129	24.6	750		1058	24.9	760
	1607	3.6	110		1603	5.9	180		1738	4.3	130		1707	3.6	110
	2217	26.9	820		2212	24.6	750		2346	26.2	800		2315	26.9	820
4 Sa	0440	2.0	60	19 Su	0433	4.3	130	4 Tu	0605	3.0	90	19 W	0535	2.0	60
	1052	25.3	770		1043	23.6	720		1215	24.9	760		1143	25.9	790
	1701	3.6	110		1648	5.2	160		1823	4.3	130		1753	2.6	80
	2310	27.2	830		2256	25.6	780								
5 Su	0532	2.0	60	20 M	0516	3.3	100	5 W	0031	25.9	790	20 Th	0001	27.6	840
	1143	25.3	770		1126	24.3	740		0649	3.3	100		0620	1.3	40
	1752	3.9	120		1732	4.6	140		1258	24.9	760		1228	26.6	810
	2359	26.9	820		2340	26.2	800		1907	4.3	130		1840	2.0	60
6 M	0621	2.3	70	21 Tu	0559	3.0	90	6 Th	0114	25.6	780	21 F	0048	27.9	850
	1232	25.3	770		1209	24.9	760		0730	3.6	110		0706	1.0	30
	1841	3.9	120		1817	3.9	120		1339	24.6	750		1314	27.2	830
									1949	4.6	140		1928	1.6	50
7 Tu	0048	26.6	810	22 W	0024	26.6	810	7 F	0155	25.3	770	22 Sa	0136	27.9	850
	0709	2.6	80		0644	2.3	70		0811	3.9	120		0754	1.3	40
	1319	24.9	760		1252	25.6	780		1419	24.6	750		1402	27.2	830
	1928	4.6	140		1902	3.6	110		2031	4.9	150		2018	1.6	50
8 W	0135	26.2	800	23 Th	0109	26.9	820	8 Sa	0237	24.6	750	23 Su	0227	27.2	830
	0755	3.3	100		0729	2.0	60		0851	4.6	140		0843	1.6	50
	1405	24.6	750		1337	25.9	790		1459	24.3	740		1453	27.2	830
	2015	4.9	150		1949	3.3	100		2113	5.2	160		2111	2.0	60
9 Th	0222	25.6	780	24 F	0156	26.9	820	9 Su	0320	24.0	730	24 M	0320	26.6	810
	0840	3.9	120		0816	2.0	60		0933	4.9	150		0936	2.6	80
	1451	24.3	740		1425	25.9	790		1542	24.0	730		1547	26.6	810
	2102	5.2	160		2038	3.0	90		2157	5.6	170		2207	2.6	80
10 F	0308	24.9	760	25 Sa	0246	26.6	810	10 M	0404	23.3	710	25 Tu	0418	25.6	780
	0926	4.6	140		0906	2.3	70		1017	5.9	180		1033	3.3	100
	1537	24.0	730		1516	26.2	800		1628	23.3	710		1646	25.9	790
	2149	5.6	170		2131	3.0	90		2244	6.2	190		2308	3.3	100
11 Sa	0356	24.0	730	26 Su	0339	26.2	800	11 Tu	0452	22.6	690	26 W	0520	24.6	750
	1012	5.2	160		0958	2.6	80		1104	6.6	200		1134	4.3	130
	1625	23.6	720		1610	25.9	790		1716	23.0	700		1748	25.6	780
	2239	6.2	190		2227	3.3	100		2334	6.6	200				
12 Su	0446	23.3	710	27 M	0436	25.6	780	12 W	0545	22.0	670	27 Th	0012	3.6	110
	1101	5.6	170		1054	3.3	100		1155	6.9	210		0627	24.0	730
	1714	23.3	710		1707	25.9	790		1809	22.6	690		1239	4.9	150
	2330	6.2	190		2327	3.3	100						1854	25.3	770
13 M	0539	22.6	690	28 Tu	0537	24.9	760	13 Th	0029	6.6	200	28 F	0118	3.9	120
	1152	6.2	190		1153	3.6	110		0640	21.7	660		0733	23.6	720
	1806	23.0	700		1807	25.9	790		1250	7.2	220		1345	5.2	160
									1903	22.6	690		1958	24.9	760
14 Tu	0023	6.6	200	29 W	0030	3.6	110	14 F	0125	6.2	190	29 Sa	0221	3.9	120
	0633	22.3	680		0641	24.6	750		0737	21.7	660		0836	23.6	720
	1244	6.6	200		1255	4.3	130		1346	7.2	220		1447	5.2	160
	1858	23.0	700		1909	25.6	780		1958	23.3	710		2059	25.3	770
15 W	0116	6.6	200	30 Th	0133	3.6	110	15 Sa	0220	5.9	180	30 Su	0321	3.9	120
	0727	22.0	670		0746	24.3	740		0832	22.0	670		0934	24.0	730
	1337	6.6	200		1358	4.6	140		1440	6.6	200		1543	4.9	150
	1950	23.3	710		2011	25.9	790		2051	24.0	730		2154	25.6	780
				31 F	0235	3.3	100	31 M	0414	3.6	110		0414	3.6	110
					0848	24.3	740		1026	24.3	740		1026	24.3	740
					1458	4.6	140		1634	4.6	140		1634	4.6	140
					2110	25.9	790		2244	25.6	780		2244	25.6	780

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the Canadian chart datum of soundings.

Eastport, Maine, 2020

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 W	h m ft cm 0248 17.1 521 0904 2.6 79 1506 17.4 530 2129 1.8 55	16 Th	h m ft cm 0248 19.8 604 0911 -0.3 -9 1513 19.8 604 2139 -0.8 -24	1 Sa	h m ft cm 0340 17.2 524 0959 2.5 76 1604 16.5 503 2221 2.6 79	16 Su	h m ft cm 0419 19.4 591 1048 0.2 6 1652 17.9 546 2313 1.1 34	1 Su	h m ft cm 0258 17.6 536 0920 1.9 58 1523 16.7 509 2140 2.5 76	16 M	h m ft cm 0354 19.2 585 1024 0.3 9 1630 17.6 536 2249 1.7 52
2 Th	0337 16.9 515 0953 2.9 88 1557 16.8 512 2218 2.3 70	17 F	0345 19.6 597 1009 0.0 0 1612 19.0 579 2236 -0.1 -3	2 Su	0430 17.0 518 1052 2.7 82 1657 16.1 491 2313 2.9 88	17 M	0520 18.8 573 1151 0.7 21 1757 17.2 524	2 M	0345 17.3 527 1011 2.2 67 1615 16.2 494 2231 2.9 88	17 Tu	0456 18.3 558 1127 1.1 34 1735 16.8 512 2354 2.3 70
3 F	0427 16.7 509 1045 3.0 91 1650 16.4 500 2308 2.6 79	18 Sa	0443 19.4 591 1110 0.3 9 1714 18.4 561 2336 0.5 15	3 M	0523 17.0 518 1148 2.6 79 1753 15.9 485	18 Tu	0016 1.7 52 0624 18.4 561 1256 0.9 27 1903 17.0 518	3 Tu	0439 17.1 521 1107 2.3 70 1712 16.0 488 2329 3.1 94	18 W	0601 17.8 543 1233 1.5 46 1841 16.6 506
4 Sa	0519 16.8 512 1139 2.9 88 1745 16.2 494	19 Su	0544 19.2 585 1213 0.4 12 1817 17.9 546	4 Tu	0009 3.0 91 0618 17.2 524 1246 2.2 67 1851 16.1 491	19 W	0120 1.9 58 0727 18.4 561 1359 0.8 24 2004 17.1 521	4 W	0537 17.2 524 1207 2.1 64 1813 16.2 494	19 Th	0059 2.4 73 0706 17.7 539 1336 1.4 43 1943 16.8 512
5 Su	0001 2.8 85 0612 17.1 521 1234 2.6 79 1840 16.2 494	20 M	0038 0.9 27 0645 19.2 585 1316 0.3 9 1920 17.8 543	5 W	0106 2.7 82 0714 17.8 543 1343 1.5 46 1947 16.7 509	20 Th	0220 1.7 52 0825 18.6 567 1455 0.5 15 2059 17.5 533	5 Th	0030 2.8 85 0638 17.7 539 1309 1.5 46 1914 16.8 512	20 F	0159 2.2 67 0805 17.9 546 1432 1.1 34 2037 17.3 527
6 M	0054 2.7 82 0704 17.5 533 1328 2.0 61 1933 16.6 506	21 Tu	0138 1.0 30 0744 19.4 591 1416 0.0 0 2020 17.9 546	6 Th	0203 2.1 64 0808 18.6 567 1438 0.5 15 2041 17.5 533	21 F	0314 1.3 40 0917 18.9 576 1545 0.1 3 2147 17.9 546	6 F	0131 2.0 61 0737 18.6 567 1408 0.5 15 2011 17.8 543	21 Sa	0253 1.7 52 0857 18.3 558 1521 0.7 21 2124 17.8 543
7 Tu	0146 2.3 70 0754 18.1 552 1420 1.3 40 2024 17.1 521	22 W	0236 0.9 27 0840 19.6 597 1511 -0.3 -9 2114 18.1 552	7 F	0256 1.2 37 0900 19.6 597 1530 -0.5 -15 2132 18.5 564	22 Sa	0401 1.0 30 1003 19.2 585 1629 -0.1 -3 2230 18.2 555	7 Sa	0229 0.9 27 0834 19.7 600 1503 -0.7 -21 2105 19.0 579	22 Su	0339 1.1 34 0942 18.7 570 1603 0.4 12 2205 18.3 558
8 W	0237 1.8 55 0842 18.9 576 1509 0.4 12 2112 17.7 539	23 Th	0329 0.8 24 0931 19.8 604 1602 -0.6 -18 2203 18.3 558	8 Sa	0348 0.2 6 0950 20.6 628 1620 -1.5 -46 2220 19.4 591	23 Su	0444 0.7 21 1045 19.4 591 1708 -0.2 -6 ● 2308 18.4 561	8 Su	0324 -0.3 -9 0927 20.8 634 1555 -1.8 -55 2156 20.2 616	23 M	0420 0.7 21 1022 19.0 579 1641 0.2 6 2242 18.6 567
9 Th	0325 1.2 37 0928 19.6 597 1557 -0.4 -12 2158 18.3 558	24 F	0418 0.6 18 1019 19.9 607 1648 -0.7 -21 ● 2248 18.4 561	9 Su	0437 -0.7 -21 1039 21.4 652 1708 -2.3 -70 ○ 2308 20.3 619	24 M	0523 0.5 15 1124 19.4 591 1746 -0.1 -3 2346 18.6 567	9 M	0416 -1.5 -46 1018 21.7 661 1644 -2.7 -82 ○ 2245 21.2 646	24 Tu	0458 0.4 12 1100 19.1 582 1718 0.2 6 ● 2318 18.9 576
10 F	0412 0.6 18 1014 20.3 619 1643 -1.1 -34 ○ 2244 18.9 576	25 Sa	0502 0.6 18 1103 19.8 604 1730 -0.6 -18 2330 18.4 561	10 M	0526 -1.5 -46 1128 21.9 668 1756 -2.8 -85 2356 20.8 634	25 Tu	0601 0.5 15 1201 19.2 585 1822 0.1 3	10 Tu	0506 -2.4 -73 1108 22.3 680 1733 -3.1 -94 2333 21.8 664	25 W	0535 0.2 6 1136 19.0 579 1753 0.3 9 2352 18.9 576
11 Sa	0459 0.1 3 1059 20.9 637 1729 -1.7 -52 2330 19.4 591	26 Su	0544 0.7 21 1144 19.6 597 1810 -0.3 -9	11 Tu	0615 -1.9 -58 1216 22.0 671 1844 -2.9 -88	26 W	0022 18.6 567 0638 0.6 18 1238 18.9 576 1858 0.4 12	11 W	0555 -2.9 -88 1157 22.3 680 1821 -3.1 -94	26 Th	0611 0.2 6 1212 18.8 573 1828 0.6 18
12 Su	0546 -0.4 -12 1146 21.2 646 1816 -2.0 -61	27 M	0010 18.3 558 0625 0.9 27 1225 19.3 588 1850 0.0 0	12 W	0044 21.1 643 0705 -2.1 -64 1306 21.7 661 1932 -2.5 -76	27 Th	0058 18.5 564 0715 0.8 24 1316 18.4 561 1935 0.8 24	12 Th	0021 22.1 674 0645 -3.0 -91 1247 21.9 668 1910 -2.6 -79	27 F	0027 18.9 576 0647 0.4 12 1248 18.4 561 1904 1.0 30
13 M	0016 19.7 600 0634 -0.6 -18 1234 21.3 649 1904 -2.1 -64	28 Tu	0050 18.2 555 0705 1.2 37 1305 18.8 573 1928 0.4 12	13 Th	0134 21.1 643 0757 -1.8 -55 1358 21.0 640 2023 -1.8 -55	28 F	0136 18.3 558 0754 1.1 34 1355 17.9 546 2013 1.4 43	13 F	0111 21.8 664 0736 -2.6 -79 1338 21.0 640 2000 -1.7 -52	28 Sa	0103 18.7 570 0725 0.6 18 1326 17.9 546 1942 1.5 46
14 Tu	0105 19.9 607 0724 -0.7 -21 1324 21.1 643 1954 -1.9 -58	29 W	0130 18.0 549 0745 1.5 46 1346 18.3 558 2008 0.9 27	14 F	0226 20.7 631 0850 -1.3 -40 1453 20.0 610 2116 -0.9 -27	29 Sa	0215 18.0 549 0835 1.5 46 1437 17.3 527 2054 1.9 58	14 Sa	0202 21.2 646 0829 -1.8 -55 1432 19.9 607 2053 -0.5 -15	29 Su	0141 18.4 561 0805 1.0 30 1406 17.5 533 2022 2.0 61
15 W	0155 19.9 607 0816 -0.6 -18 1417 20.5 625 2045 -1.4 -43	30 Th	0211 17.7 539 0827 1.8 55 1429 17.7 539 2049 1.5 46	15 Sa	0320 20.1 613 0947 -0.5 -15 1550 18.9 576 ○ 2212 0.2 6	15 Su	0256 20.2 616 0925 -0.7 -21 1529 18.6 567 2149 0.7 21	15 Su	0256 20.2 616 0925 -0.7 -21 1529 18.6 567 2149 0.7 21	30 M	0223 18.1 552 0849 1.3 40 1451 17.0 518 2107 2.5 76
		31 F	0254 17.4 530 0911 2.2 67 1514 17.1 521 2133 2.1 64							31 Tu	0310 17.7 539 0939 1.7 52 1542 16.6 506 2159 2.8 85

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Bar Harbor, Maine, 2020

Times and Heights of High and Low Waters

July				August				September																					
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height																
	h	m	ft	cm	h	m	ft	cm	h	m	ft	cm	h	m	ft	cm													
1 W	0049	-0.2	-6		16 Th	0105	1.4	43	1 Sa	0236	-0.5	-15	16 Su	0207	0.7	21	1 Tu	0400	-0.3	-9	16 W	0312	-0.7	-21					
	0658	10.8	329				0711	9.1		277		0847		10.5	320			0816	9.6	293			1010	10.7	326		0922	11.4	347
	1306	0.1	3				1313	1.9		58		1449		0.6	18			1415	1.5	46			1614	0.5	15		1529	-0.3	-9
	1922	12.1	369			1926	10.4	317		2102	12.0	366		2027	11.2	341		2223	11.6	354		2140	12.5	381					
2 Th	0150	-0.6	-18		17 F	0156	1.1	34	2 Su	0330	-0.6	-18	17 M	0256	0.2	6	2 W	0442	-0.2	-6	17 Th	0359	-1.2	-37					
	0800	10.9	332				0803	9.3		283		0941		10.7	326			0905	10.1	308			1050	10.8	329		1009	12.1	369
	1404	0.2	6				1401	1.8		55		1541		0.5	15			1505	0.9	27			1655	0.4	12		1619	-1.0	-30
	2019	12.4	378			2013	10.7	326		2153	12.1	369		2116	11.8	360		2303	11.5	351		2230	12.9	393					
3 F	0248	-0.9	-27		18 Sa	0243	0.7	21	3 M	0419	-0.7	-21	18 Tu	0342	-0.4	-12	3 Th	0520	-0.1	-3	18 F	0446	-1.5	-46					
	0858	11.0	335				0851	9.6		293		1029		10.8	329			0951	10.7	326			1128	10.8	329		1056	12.6	384
	1500	0.1	3				1448	1.5		46		1630		0.5	15			1553	0.4	12			1734	0.4	12		1619	-1.4	-43
	2113	12.5	381			2059	11.1	338		2240	12.0	366		2204	12.3	375		2341	11.3	344		2319	12.9	393					

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Portland, Maine, 2020

Times and Heights of High and Low Waters

April				May				June			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	h m	ft	h m	ft	h m	ft	h m	ft	h m	ft
1 W	0403 9.0 274 1034 0.8 24 1652 7.9 241 2247 1.7 52	16 Th	0555 9.0 274 1226 0.8 24 1845 8.4 256	1 F	0439 9.4 287 1108 0.4 12 1730 8.6 262 2329 1.2 37	16 Sa	0012 1.8 55 0621 8.6 262 1243 1.1 34 1902 8.7 265	1 M	0016 0.5 15 0629 9.6 293 1243 -0.1 -3 1905 10.2 311	16 Tu	0122 1.5 46 0727 8.2 250 1329 1.5 46 1949 9.1 277
2 Th	0503 9.0 274 1135 0.8 24 1755 8.0 244 2351 1.5 46	17 F	0047 1.6 49 0700 8.9 271 1327 0.8 24 1943 8.5 259	2 Sa	0544 9.5 290 1210 0.2 6 1831 9.1 277	17 Su	0112 1.6 49 0719 8.6 262 1335 1.1 34 1952 8.9 271	2 Tu	0121 0.0 0 0733 9.7 296 1341 -0.2 -6 2001 10.7 326	17 W	0211 1.2 37 0818 8.2 250 1414 1.5 46 2032 9.4 287
3 F	0609 9.2 280 1239 0.5 15 1859 8.5 259	18 Sa	0148 1.4 43 0758 8.9 271 1419 0.8 24 2033 8.8 268	3 Su	0035 0.8 24 0650 9.7 296 1310 -0.1 -3 1930 9.7 296	18 M	0205 1.3 40 0811 8.6 262 1420 1.1 34 2035 9.2 280	3 W	0221 -0.6 -18 0834 9.9 302 1436 -0.3 -9 2054 11.1 338	18 Th	0256 0.8 24 0905 8.3 253 1455 1.4 43 2112 9.6 293
4 Sa	0057 1.0 30 0715 9.7 296 1341 0.0 0 1958 9.1 277	19 Su	0240 1.1 34 0849 9.0 274 1504 0.7 21 2116 9.1 277	4 M	0139 0.1 3 0753 10.1 308 1407 -0.4 -12 2025 10.4 317	19 Tu	0251 1.0 30 0858 8.7 265 1501 1.1 34 2115 9.4 287	4 Th	0317 -1.0 -30 0931 10.0 305 1528 -0.3 -9 2145 11.4 347	19 F	0338 0.5 15 0949 8.4 256 1536 1.4 43 2151 9.8 299
5 Su	0159 0.3 9 0816 10.2 311 1436 -0.6 -18 2052 9.9 302	20 M	0324 0.8 24 0933 9.1 277 1543 0.6 18 2154 9.3 283	5 Tu	0238 -0.6 -18 0851 10.4 317 1500 -0.7 -21 2116 11.0 335	20 W	0333 0.7 21 0941 8.8 268 1538 1.1 34 2152 9.6 293	5 F	0411 -1.4 -43 1026 10.0 305 1620 -0.2 -6 2236 11.5 351	20 Sa	0418 0.2 6 1031 8.6 262 1615 1.3 40 2231 10.0 305
6 M	0256 -0.4 -12 0912 10.7 326 1527 -1.1 -34 2142 10.6 323	21 Tu	0405 0.5 15 1014 9.2 280 1618 0.6 18 2230 9.5 290	6 W	0333 -1.2 -37 0947 10.6 323 1551 -0.9 -27 2206 11.5 351	21 Th	0411 0.4 12 1022 8.8 268 1613 1.1 34 2227 9.8 299	6 Sa	0503 -1.5 -46 1119 10.0 305 1711 0.0 0 2326 11.4 347	21 Su	0457 0.0 0 1113 8.7 265 1656 1.1 34 2311 10.2 311
7 Tu	0350 -1.1 -34 1006 11.0 335 1617 -1.4 -43 2231 11.2 341	22 W	0441 0.3 9 1052 9.2 280 1651 0.7 21 2303 9.7 296	7 Th	0426 -1.7 -52 1041 10.7 326 1641 -0.9 -27 2256 11.7 357	22 F	0448 0.2 6 1101 8.8 268 1649 1.1 34 2302 9.9 302	7 Su	0554 -1.4 -43 1211 9.8 299 1802 0.2 6	22 M	0538 -0.2 -6 1154 8.8 268 1738 1.0 30 2352 10.3 314
8 W	0443 -1.7 -52 1058 11.2 341 1705 -1.5 -46 2319 11.5 351	23 Th	0516 0.2 6 1128 9.1 277 1723 0.8 24 2334 9.7 296	8 F	0518 -1.9 -58 1134 10.6 323 1731 -0.7 -21 2345 11.7 357	23 Sa	0524 0.1 3 1139 8.8 268 1725 1.2 37 2337 10.0 305	8 M	0016 11.1 338 0644 -1.1 -34 1302 9.5 290 1852 0.5 15	23 Tu	0619 -0.3 -9 1236 8.9 271 1822 0.9 27
9 Th	0534 -2.0 -61 1150 11.1 338 1754 -1.3 -40	24 F	0550 0.1 3 1203 9.0 274 1755 0.9 27	9 Sa	0609 -1.8 -55 1226 10.3 314 1821 -0.3 -9	24 Su	0601 0.0 0 1217 8.8 268 1802 1.2 37	9 Tu	0106 10.7 326 0734 -0.7 -21 1353 9.3 283 1944 0.9 27	24 W	0035 10.4 317 0703 -0.4 -12 1319 9.1 277 1909 0.8 24
10 F	0008 11.6 354 0626 -2.0 -61 1242 10.8 329 1843 -0.9 -27	25 Sa	0006 9.7 296 0624 0.1 3 1239 8.8 268 1829 1.1 34	10 Su	0035 11.4 347 0701 -1.5 -46 1319 9.9 302 1912 0.2 6	25 M	0013 10.0 305 0639 -0.1 -3 1256 8.7 265 1843 1.2 37	10 W	0157 10.2 311 0825 -0.2 -6 1445 9.0 274 2037 1.3 40	25 Th	0122 10.4 317 0749 -0.5 -15 1407 9.2 280 2000 0.8 24
11 Sa	0057 11.4 347 0718 -1.7 -52 1336 10.3 314 1934 -0.4 -12	26 Su	0039 9.7 296 0700 0.1 3 1315 8.7 265 1906 1.2 37	11 M	0126 10.9 332 0754 -1.0 -30 1414 9.5 290 2006 0.7 21	26 Tu	0053 10.0 305 0721 -0.1 -3 1337 8.7 265 1926 1.3 40	11 Th	0250 9.7 296 0917 0.3 9 1539 8.8 268 2133 1.5 46	26 F	0212 10.3 314 0838 -0.4 -12 1457 9.4 287 2055 0.7 21
12 Su	0148 11.0 335 0813 -1.2 -37 1432 9.7 296 2029 0.3 9	27 M	0115 9.6 293 0740 0.2 6 1355 8.5 259 1947 1.4 43	12 Tu	0220 10.3 314 0850 -0.4 -12 1512 9.0 274 2104 1.2 37	27 W	0137 9.9 302 0806 0.0 0 1424 8.7 265 2015 1.3 40	12 F	0345 9.2 280 1009 0.6 18 1631 8.7 265 2231 1.7 52	27 Sa	0307 10.1 308 0930 -0.4 -12 1551 9.6 293 2154 0.6 18
13 M	0244 10.4 317 0912 -0.6 -18 1533 9.1 277 2128 0.9 27	28 Tu	0156 9.5 290 0824 0.3 9 1441 8.3 253 2033 1.5 46	13 W	0319 9.7 296 0948 0.2 6 1611 8.7 265 2205 1.5 46	28 Th	0226 9.9 302 0856 0.0 0 1516 8.8 268 2110 1.2 37	13 Sa	0440 8.8 268 1059 1.0 30 1722 8.7 265 2328 1.8 55	28 Su	0406 9.8 299 1024 -0.2 -6 1647 9.9 302 2256 0.5 15
14 Tu	0345 9.8 299 1015 0.0 0 1637 8.7 265 2232 1.4 43	29 W	0243 9.4 287 0914 0.4 12 1532 8.3 253 2126 1.5 46	14 Th	0419 9.2 280 1047 0.6 18 1710 8.5 259 2308 1.7 52	29 F	0321 9.8 299 0950 0.0 0 1611 9.0 274 2209 1.1 34	14 Su	0536 8.5 259 1150 1.2 37 1813 8.8 268	29 M	0508 9.6 293 1120 0.0 0 1744 10.1 308
15 W	0449 9.3 283 1120 0.5 15 1742 8.4 256 2339 1.6 49	30 Th	0338 9.4 287 1009 0.5 15 1629 8.3 253 2225 1.5 46	15 F	0520 8.9 271 1146 0.9 27 1808 8.5 259	30 Sa	0421 9.7 296 1045 0.0 0 1708 9.3 283 2311 0.9 27	15 M	0026 1.7 52 0632 8.3 253 1240 1.4 43 1903 8.9 271	30 Tu	0000 0.2 6 0612 9.4 287 1219 0.1 3 1842 10.4 317
						31 Su	0524 9.6 293 1143 0.0 0 1807 9.7 296				

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Portland, Maine, 2020

Times and Heights of High and Low Waters

July				August				September							
Time	Height			Time	Height			Time	Height			Time	Height		
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm	
1 W	0105	0.0	0		16 Th	0125	1.3	40		1 Sa	0255	-0.3	-9		
	0718	9.3	283			0735	7.9	241			0908	9.0	274		
	1319	0.2	6			1325	1.7	52		16 Su	1501	0.7	21		
	1940	10.6	323			1947	9.2	280			2119	10.5	320		
2 Th	0207	-0.4	-12		17 F	0216	1.0	30		2 Su	0348	-0.4	-12		
	0820	9.3	283			0826	8.0	244			1002	9.1	277		
	1417	0.3	9			1414	1.6	49		17 M	1553	0.6	18		
	2036	10.9	332			2033	9.5	290			2210	10.5	320		
3 F	0305	-0.7	-21		18 Sa	0302	0.6	18		3 M	0438	-0.5	-15		
	0918	9.4	287			0914	8.2	250			1051	9.2	280		
	1512	0.3	9			1500	1.4	43		3 Th	1642	0.6	18		
	2129	11.0	335			2118	9.8	299		○	2258	10.5	320		
4 Sa	0359	-0.9	-27		19 Su	0346	0.3	9		4 Tu	0523	-0.4	-12		
	1013	9.4	287			0959	8.5	259			1136	9.2	280		
	1604	0.3	9			1544	1.1	34		4 W	1728	0.6	18		
○	2221	11.0	335			2202	10.2	311			2343	10.4	317		
5 Su	0450	-0.9	-27		20 M	0430	-0.1	-3		5 W	0605	-0.3	-9		
	1106	9.4	287			1044	8.8	268			1219	9.2	280		
	1656	0.4	12			1630	0.8	24		6 Th	1812	0.7	21		
	2311	10.9	332		●	2246	10.5	320			0025	10.1	308		
6 M	0540	-0.9	-27		21 Tu	0513	-0.5	-15			0645	-0.1	-3		
	1155	9.4	287			1128	9.1	277		6 Th	1258	9.2	280		
	1745	0.5	15			1716	0.5	15			1854	0.8	24		
						2332	10.7	326		7 F	0106	9.8	299		
7 Tu	0000	10.7	326		22 W	0557	-0.7	-21			0723	0.2	6		
	0627	-0.7	-21			1212	9.4	287		7 F	1338	9.1	277		
	1242	9.3	283			1803	0.3	9			1936	1.0	30		
	1833	0.7	21												
8 W	0046	10.4	317		23 Th	0018	10.9	332		8 Sa	0147	9.4	287		
	0712	-0.4	-12			0642	-0.9	-27			0801	0.5	15		
	1328	9.1	277			1257	9.7	296		8 Sa	1417	9.0	274		
	1920	0.9	27			1852	0.1	3			2019	1.1	34		
9 Th	0132	10.0	305		24 F	0106	10.8	329		9 Su	0230	9.0	274		
	0756	0.0	0			0728	-0.9	-27			0840	0.8	24		
	1414	9.0	274			1345	9.9	302		10 M	1458	8.9	271		
	2008	1.2	37			1944	0.0	0			2105	1.3	40		
10 F	0219	9.6	293		25 Sa	0157	10.6	323		10 M	0315	8.6	262		
	0840	0.3	9			0817	-0.8	-24			0921	1.2	37		
	1500	8.9	271			1435	10.1	308		11 Tu	1541	8.9	271		
	2057	1.4	43			2040	0.0	0			2153	1.4	43		
11 Sa	0307	9.1	277		26 Su	0252	10.3	314		11 Tu	0404	8.2	250		
	0925	0.7	21			0908	-0.6	-18			1005	1.5	46		
	1546	8.8	268			1529	10.2	311		11 Tu	1627	8.8	268		
	2148	1.5	46			2138	0.0	0		●	2244	1.5	46		
12 Su	0357	8.7	265		27 M	0352	9.8	299		12 W	0456	7.9	241		
	1010	1.0	30			1002	-0.2	-6			1052	1.7	52		
	1633	8.8	268			1624	10.3	314		12 W	1715	8.8	268		
○	2241	1.6	49		○	2240	0.1	3			2338	1.5	46		
13 M	0449	8.3	253		28 Tu	0454	9.4	287		13 Th	0552	7.7	235		
	1055	1.3	40			1059	0.1	3			1144	1.9	58		
	1720	8.8	268			1723	10.3	314		13 Th	1808	8.9	271		
	2334	1.6	49			2345	0.1	3							
14 Tu	0543	8.0	244		29 W	0559	9.1	277		14 F	0036	1.4	43		
	1143	1.6	49			1200	0.5	15			0651	7.7	235		
	1809	8.9	271			1823	10.3	314			1239	1.9	58		
15 W	0030	1.5	46		30 Th	0052	0.0	0		15 Sa	0133	1.1	34		
	0639	7.9	241			0706	8.9	271			0747	7.9	241		
	1234	1.7	52			1303	0.7	21		15 Sa	1335	1.6	49		
	1858	9.0	274			1925	10.3	314			1956	9.5	290		
					31 F	0156	-0.1	-3		31 M	0334	-0.1	-3		
						0810	8.9	271			0946	9.0	274		
						1404	0.7	21			1542	0.7	21		
						2024	10.4	317			2157	10.2	311		

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Boston, Massachusetts, 2020

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	h m	ft	h m	ft	h m	ft	h m	ft	h m	ft
1 W	0318 8.7 265 0918 1.5 46 1529 9.0 274 2147 1.0 30	16 Th	0316 10.3 314 0925 -0.2 -6 1536 10.4 317 2153 -0.6 -18	1 Sa	0405 8.8 268 1019 1.4 43 1629 8.3 253 2237 1.5 46	16 Su	0444 10.3 314 1106 -0.1 -3 1722 9.1 277 2324 0.6 18	1 Su	0321 9.2 280 0941 1.1 34 1552 8.4 256 2156 1.5 46	16 M	0419 10.3 314 1044 0.0 0 1703 9.0 274 2301 1.1 34
2 Th	0406 8.6 262 1009 1.7 52 1620 8.7 265 2235 1.3 40	17 F	0412 10.3 314 1025 -0.1 -3 1637 9.8 299 2250 -0.2 -6	2 Su	0453 8.8 268 1113 1.5 46 1723 8.1 247 2328 1.6 49	17 M	0546 10.1 308 1212 0.2 6 1830 8.7 265	2 M	0408 9.1 277 1033 1.2 37 1644 8.1 247 2247 1.7 52	17 Tu	0521 9.9 302 1149 0.5 15 1810 8.6 262
3 F	0454 8.6 262 1103 1.7 52 1714 8.4 256 2325 1.5 46	18 Sa	0510 10.3 314 1127 0.0 0 1741 9.4 287 2348 0.2 6	3 M	0545 8.9 271 1209 1.4 43 1820 8.0 244	18 Tu	0027 1.0 30 0650 9.9 302 1318 0.3 9 1937 8.6 262	3 Tu	0500 9.1 277 1129 1.2 37 1741 8.0 244 2344 1.8 55	18 W	0005 1.4 43 0628 9.6 293 1257 0.7 21 1918 8.5 259
4 Sa	0544 8.7 265 1158 1.7 52 1809 8.2 250	19 Su	0610 10.3 314 1232 0.0 0 1846 9.1 277	4 Tu	0022 1.7 52 0638 9.1 277 1306 1.1 34 1918 8.1 247	19 W	0129 1.1 34 0753 9.9 302 1421 0.3 9 2039 8.6 262	4 W	0557 9.2 280 1228 1.0 30 1841 8.1 247	19 Th	0110 1.5 46 0733 9.5 290 1400 0.7 21 2019 8.6 262
5 Su	0015 1.6 49 0635 8.9 271 1253 1.4 43 1904 8.2 250	20 M	0048 0.5 15 0710 10.3 314 1335 -0.1 -3 1951 9.0 274	5 W	0117 1.5 46 0732 9.5 290 1402 0.6 18 2014 8.3 253	20 Th	0228 1.1 34 0851 9.9 302 1517 0.1 3 2133 8.8 268	5 Th	0043 1.6 49 0656 9.6 293 1328 0.6 18 1941 8.5 259	20 F	0210 1.4 43 0832 9.6 293 1455 0.6 18 2111 8.8 268
6 M	0106 1.5 46 0724 9.2 280 1346 1.0 30 1958 8.3 253	21 Tu	0147 0.6 18 0809 10.4 317 1435 -0.2 -6 2052 9.0 274	6 Th	0211 1.2 37 0826 10.0 305 1455 0.0 0 2108 8.8 268	21 F	0321 0.9 27 0942 10.1 308 1604 0.0 0 2220 9.0 274	6 F	0141 1.1 34 0755 10.1 308 1424 0.0 0 2037 9.0 274	21 Sa	0303 1.2 37 0923 9.7 296 1540 0.5 15 2155 9.1 277
7 Tu	0156 1.4 43 0812 9.6 293 1437 0.6 18 2049 8.5 259	22 W	0243 0.6 18 0904 10.5 320 1530 -0.4 -12 2147 9.1 277	7 F	0304 0.7 21 0918 10.6 323 1545 -0.6 -18 2158 9.3 283	22 Sa	0409 0.7 21 1028 10.1 308 1646 0.0 0 2301 9.2 280	7 Sa	0238 0.5 15 0852 10.7 326 1518 -0.6 -18 2130 9.7 296	22 Su	0349 0.9 27 1007 9.8 299 1619 0.4 12 2233 9.3 283
8 W	0245 1.1 34 0859 10.0 305 1525 0.0 0 2138 8.8 268	23 Th	0336 0.6 18 0955 10.5 320 1620 -0.5 -15 2236 9.1 277	8 Sa	0355 0.1 3 1008 11.1 338 1634 -1.2 -37 2247 9.8 299	23 Su	0452 0.6 18 1108 10.2 311 1724 -0.1 -3 2338 9.3 283	8 Su	0332 -0.2 -6 0946 11.2 341 1608 -1.2 -37 2221 10.4 317	23 M	0430 0.6 18 1047 9.9 302 1655 0.4 12 2308 9.5 290
9 Th	0333 0.8 24 0945 10.5 320 1612 -0.5 -15 2225 9.1 277	24 F	0424 0.5 15 1042 10.6 323 1705 -0.5 -15 2320 9.2 280	9 Su	0445 -0.4 -12 1058 11.5 351 1722 -1.6 -49 2334 10.3 314	24 M	0532 0.4 12 1147 10.1 308 1800 0.0 0	9 M	0425 -0.9 -27 1038 11.7 357 1657 -1.7 -52 2309 11.0 335	24 Tu	0509 0.4 12 1124 9.9 302 1730 0.4 12 2342 9.7 296
10 F	0420 0.4 12 1031 10.9 332 1658 -0.9 -27 2311 9.4 287	25 Sa	0510 0.5 15 1125 10.5 320 1747 -0.4 -12	10 M	0535 -0.9 -27 1148 11.8 360 1809 -1.8 -55	25 Tu	0013 9.4 287 0611 0.4 12 1224 10.0 305 1836 0.1 3	10 Tu	0516 -1.4 -43 1129 11.9 363 1745 -1.9 -58 2357 11.4 347	25 W	0547 0.3 9 1200 9.8 299 1805 0.4 12
11 Sa	0507 0.1 3 1118 11.2 341 1744 -1.3 -40 2357 9.7 296	26 Su	0001 9.2 280 0553 0.5 15 1207 10.4 317 1826 -0.3 -9	11 Tu	0022 10.7 326 0625 -1.1 -34 1238 11.8 360 1857 -1.8 -55	26 W	0048 9.5 290 0650 0.4 12 1301 9.8 299 1912 0.3 9	11 W	0607 -1.8 -55 1220 11.8 360 1833 -1.8 -55	26 Th	0015 9.8 299 0624 0.2 6 1236 9.7 296 1840 0.6 18
12 Su	0554 -0.2 -6 1205 11.4 347 1831 -1.5 -46	27 M	0040 9.2 280 0635 0.6 18 1247 10.1 308 1905 -0.1 -3	12 W	0110 10.9 332 0717 -1.2 -37 1329 11.5 351 1946 -1.6 -49	27 Th	0123 9.4 287 0730 0.5 15 1340 9.5 290 1949 0.5 15	12 Th	0046 11.6 354 0658 -1.8 -55 1312 11.5 351 1922 -1.5 -46	27 F	0050 9.8 299 0702 0.3 9 1314 9.4 287 1917 0.8 24
13 M	0045 10.0 305 0643 -0.3 -9 1254 11.4 347 1919 -1.5 -46	28 Tu	0119 9.2 280 0716 0.7 21 1327 9.9 302 1944 0.2 6	13 Th	0200 11.0 335 0810 -1.1 -34 1422 11.0 335 2036 -1.1 -34	28 F	0200 9.4 287 0810 0.7 21 1421 9.1 277 2028 0.9 27	13 F	0135 11.6 354 0751 -1.6 -49 1405 10.9 332 2012 -0.9 -27	28 Sa	0125 9.8 299 0742 0.4 12 1353 9.2 280 1955 1.1 34
14 Tu	0133 10.1 308 0734 -0.4 -12 1345 11.2 341 2008 -1.3 -40	29 W	0158 9.1 277 0759 0.9 27 1409 9.5 290 2024 0.5 15	14 F	0252 10.9 332 0905 -0.8 -24 1519 10.4 317 2129 -0.6 -18	29 Sa	0239 9.3 283 0854 0.9 27 1504 8.8 268 2110 1.2 37	14 Sa	0226 11.3 344 0845 -1.1 -34 1500 10.3 314 2104 -0.2 -6	29 Su	0203 9.7 296 0824 0.6 18 1435 8.8 268 2037 1.3 40
15 W	0223 10.2 311 0828 -0.4 -12 1439 10.9 332 2100 -1.0 -30	30 Th	0238 9.0 274 0843 1.1 34 1453 9.1 277 2106 0.8 24	15 Sa	0346 10.6 323 1004 -0.4 -12 1618 9.7 296 2225 0.1 3	15 Su	0320 10.8 329 0942 -0.5 -15 1559 9.6 293 2200 0.5 15	15 Su	0320 10.8 329 0942 -0.5 -15 1559 9.6 293 2200 0.5 15	30 M	0245 9.5 290 0910 0.8 24 1522 8.6 262 2123 1.6 49
		31 F	0320 8.9 271 0929 1.3 40 1539 8.7 265 2150 1.2 37					31 Tu	0332 9.4 287 1000 0.9 27 1613 8.3 253 2215 1.7 52		

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Boston, Massachusetts, 2020

Times and Heights of High and Low Waters

April				May				June			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	h m	ft	h m	ft	h m	ft	h m	ft	h m	ft
1 W	0425 9.4 287 1057 1.0 30 1710 8.3 253 2313 1.7 52	16 Th	0600 9.3 283 1226 1.0 30 1849 8.6 262	1 F	0459 9.8 299 1129 0.5 15 1745 9.1 277 2351 1.2 37	16 Sa	0009 1.9 58 0625 9.0 274 1243 1.3 40 1904 8.9 271	1 M	0032 0.4 12 0642 10.1 308 1259 -0.1 -3 1915 10.6 323	16 Tu	0118 1.5 46 0730 8.6 262 1332 1.6 49 1950 9.4 287
2 Th	0524 9.5 290 1156 0.8 24 1811 8.5 259	17 F	0044 1.8 55 0704 9.2 280 1327 1.1 34 1947 8.7 265	2 Sa	0601 10.0 305 1228 0.2 6 1844 9.5 290	17 Su	0107 1.7 52 0722 9.0 274 1334 1.4 43 1953 9.1 277	2 Tu	0133 -0.1 -3 0743 10.2 311 1354 -0.2 -6 2010 11.1 338	17 W	0208 1.2 37 0820 8.7 265 1418 1.6 49 2035 9.7 296
3 F	0014 1.5 46 0626 9.8 299 1257 0.5 15 1911 8.9 271	18 Sa	0144 1.6 49 0802 9.3 283 1420 1.1 34 2037 9.0 274	3 Su	0053 0.7 21 0703 10.3 314 1326 -0.1 -3 1941 10.2 311	18 M	0200 1.5 46 0814 9.0 274 1420 1.4 43 2037 9.4 287	3 W	0231 -0.7 -21 0843 10.4 317 1449 -0.3 -9 2103 11.6 354	18 Th	0256 0.9 27 0909 8.8 268 1503 1.5 46 2118 9.9 302
4 Sa	0115 1.0 30 0728 10.2 311 1354 0.0 0 2008 9.6 293	19 Su	0236 1.3 40 0853 9.4 287 1504 1.0 30 2120 9.3 283	4 M	0153 0.1 3 0804 10.6 323 1421 -0.5 -15 2035 10.9 332	19 Tu	0248 1.1 34 0901 9.1 277 1502 1.3 40 2118 9.7 296	4 Th	0327 -1.1 -34 0940 10.4 317 1541 -0.3 -9 2155 11.8 360	19 F	0340 0.6 18 0954 8.9 271 1547 1.4 43 2200 10.2 311
5 Su	0214 0.3 9 0827 10.7 326 1449 -0.6 -18 2102 10.3 314	20 M	0322 1.0 30 0938 9.5 290 1544 0.9 27 2158 9.6 293	5 Tu	0250 -0.7 -21 0902 10.9 332 1514 -0.8 -24 2127 11.5 351	20 W	0331 0.8 24 0945 9.2 280 1542 1.2 37 2156 9.9 302	5 F	0420 -1.4 -43 1034 10.4 317 1633 -0.3 -9 2246 11.9 363	20 Sa	0424 0.3 9 1038 9.0 274 1630 1.2 37 2241 10.4 317
6 M	0311 -0.5 -15 0923 11.2 341 1541 -1.1 -34 2154 11.0 335	21 Tu	0404 0.7 21 1019 9.6 293 1621 0.8 24 2234 9.8 299	6 W	0345 -1.3 -40 0958 11.1 338 1605 -0.9 -27 2218 11.9 363	21 Th	0413 0.5 15 1027 9.2 280 1622 1.2 37 2234 10.1 308	6 Sa	0512 -1.5 -46 1127 10.4 317 1723 -0.1 -3 2337 11.8 360	21 Su	0506 0.0 0 1121 9.1 277 1713 1.1 34 2323 10.6 323
7 Tu	0404 -1.2 -37 1017 11.6 354 1631 -1.4 -43 2243 11.6 354	22 W	0442 0.4 12 1057 9.6 293 1657 0.8 24 2309 10.0 305	7 Th	0438 -1.7 -52 1051 11.2 341 1655 -0.9 -27 2307 12.1 369	22 F	0453 0.3 9 1107 9.3 283 1701 1.1 34 2311 10.3 314	7 Su	0603 -1.3 -40 1219 10.2 311 1813 0.1 3	22 M	0549 -0.2 -6 1204 9.2 280 1757 1.0 30
8 W	0456 -1.7 -52 1110 11.7 357 1720 -1.5 -46 2332 12.0 366	23 Th	0520 0.2 6 1134 9.6 293 1733 0.8 24 2343 10.1 308	8 F	0529 -1.9 -58 1144 11.0 335 1745 -0.8 -24 2357 12.1 369	23 Sa	0532 0.1 3 1147 9.2 280 1740 1.1 34 2349 10.3 314	8 M	0026 11.5 351 0652 -1.0 -30 1310 9.9 302 1903 0.5 15	23 Tu	0006 10.7 326 0633 -0.4 -12 1248 9.4 287 1842 0.9 27
9 Th	0548 -2.0 -61 1202 11.6 354 1808 -1.4 -43	24 F	0558 0.1 3 1212 9.5 290 1810 0.9 27	9 Sa	0620 -1.8 -55 1236 10.7 326 1835 -0.4 -12	24 Su	0613 0.0 0 1227 9.2 280 1821 1.2 37	9 Tu	0116 11.1 338 0742 -0.6 -18 1400 9.6 293 1954 0.9 27	24 W	0052 10.8 329 0718 -0.5 -15 1333 9.5 290 1930 0.8 24
10 F	0020 12.1 369 0639 -2.0 -61 1254 11.2 341 1858 -1.0 -30	25 Sa	0018 10.1 308 0637 0.1 3 1250 9.3 283 1848 1.1 34	10 Su	0047 11.8 360 0712 -1.4 -43 1328 10.3 314 1925 0.1 3	25 M	0029 10.4 317 0655 0.0 0 1309 9.2 280 1904 1.2 37	10 W	0207 10.6 323 0831 -0.1 -3 1451 9.3 283 2045 1.3 40	25 Th	0139 10.8 329 0806 -0.5 -15 1421 9.6 293 2021 0.7 21
11 Sa	0110 11.9 363 0731 -1.7 -52 1347 10.7 326 1948 -0.4 -12	26 Su	0055 10.1 308 0717 0.2 6 1330 9.1 277 1927 1.2 37	11 M	0138 11.3 344 0803 -0.9 -27 1422 9.8 299 2017 0.6 18	26 Tu	0111 10.4 317 0739 0.0 0 1353 9.1 277 1949 1.3 40	11 Th	0259 10.0 305 0921 0.4 12 1542 9.1 277 2138 1.6 49	26 F	0230 10.7 326 0855 -0.4 -12 1511 9.8 299 2115 0.6 18
12 Su	0201 11.4 347 0824 -1.1 -34 1441 10.1 308 2041 0.2 6	27 M	0134 10.0 305 0759 0.3 9 1412 8.9 271 2011 1.4 43	12 Tu	0231 10.7 326 0857 -0.2 -6 1517 9.4 287 2112 1.2 37	27 W	0157 10.3 314 0825 0.0 0 1440 9.1 277 2038 1.3 40	12 F	0352 9.5 290 1012 0.9 27 1634 9.0 274 2233 1.8 55	27 Sa	0324 10.5 320 0947 -0.3 -9 1604 10.0 305 2212 0.5 15
13 M	0255 10.9 332 0920 -0.4 -12 1539 9.5 290 2137 0.9 27	28 Tu	0217 9.9 302 0845 0.4 12 1459 8.8 268 2058 1.6 49	13 W	0327 10.1 308 0952 0.4 12 1615 9.0 274 2209 1.6 49	28 Th	0246 10.3 314 0915 0.1 3 1531 9.2 280 2132 1.3 40	13 Sa	0446 9.1 277 1103 1.2 37 1725 8.9 271 2329 1.8 55	28 Su	0422 10.2 311 1041 -0.1 -3 1659 10.3 314 2312 0.4 12
14 Tu	0353 10.2 311 1020 0.2 6 1641 9.0 274 2236 1.4 43	29 W	0306 9.8 299 0936 0.6 18 1550 8.7 265 2151 1.6 49	14 Th	0425 9.6 293 1050 0.9 27 1713 8.8 268 2309 1.9 58	29 F	0341 10.2 311 1009 0.1 3 1626 9.4 287 2230 1.1 34	14 Su	0541 8.9 271 1154 1.4 43 1815 9.0 274	29 M	0522 10.0 305 1137 0.0 0 1755 10.6 323
15 W	0455 9.7 296 1122 0.7 21 1745 8.7 265 2340 1.7 52	30 Th	0400 9.8 299 1031 0.6 18 1646 8.8 268 2249 1.5 46	15 F	0525 9.2 280 1147 1.2 37 1810 8.8 268	30 Sa	0439 10.1 308 1105 0.1 3 1722 9.7 296 2331 0.8 24	15 M	0025 1.8 55 0636 8.7 265 1244 1.6 49 1904 9.2 280	30 Tu	0014 0.1 3 0624 9.8 299 1234 0.1 3 1852 10.8 329
						31 Su	0540 10.1 308 1202 0.1 3 1819 10.1 308				

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Boston, Massachusetts, 2020

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	h m	ft	h m	ft	h m	ft	h m	ft	h m	ft
1 Th	0435 0.4 12	16 F	0402 -1.1 -34	1 Su	0515 0.9 27	16 M	0517 -1.0 -30	1 Tu	0524 1.1 34	16 W	0548 -0.5 -15
	1049 9.8 299		1014 11.5 351		1126 10.1 308		1128 12.3 375		1134 10.2 311		1201 11.8 360
	1652 0.5 15		1629 -1.5 -46		1743 0.2 6		1753 -2.1 -64		1757 0.0 0		1828 -1.6 -49
	2306 10.0 305		2241 11.5 351		2356 9.4 287						
2 F	0511 0.5 15	17 Sa	0451 -1.3 -40	2 M	0552 1.0 30	17 Tu	0008 10.8 329	2 W	0011 9.0 274	17 Th	0044 10.1 308
	1124 9.9 302		1102 12.0 366		1201 10.1 308		0607 -0.7 -21		0604 1.1 34		0638 -0.2 -6
	1730 0.4 12		1720 -1.9 -58		1821 0.2 6		1219 12.1 369		1212 10.2 311		1252 11.4 347
	2343 9.9 302		2333 11.5 351				1845 -1.8 -55		1837 0.0 0		1918 -1.2 -37
3 Sa	0547 0.6 18	18 Su	0540 -1.3 -40	3 Tu	0034 9.2 280	18 W	0101 10.5 320	3 Th	0051 8.9 271	18 F	0135 9.8 299
	1158 9.9 302		1151 12.2 372		0630 1.2 37		0658 -0.3 -9		0645 1.2 37		0730 0.2 6
	1808 0.3 9		1812 -2.0 -61		1238 10.0 305		1311 11.7 357		1253 10.1 308		1434 10.9 332
					1900 0.3 9		1938 -1.4 -43		1919 0.0 0		2008 -0.7 -21
4 Su	0021 9.7 296	19 M	0025 11.3 344	4 W	0113 9.0 274	19 Th	0156 10.0 305	4 F	0133 8.8 268	19 Sa	0227 9.5 290
	0623 0.8 24		0629 -1.0 -30		0710 1.4 43		0751 0.2 6		0728 1.3 40		0822 0.6 18
	1233 9.9 302		1241 12.1 369		1317 9.9 302		1406 11.1 338		1335 10.0 305		1456 10.3 314
	1847 0.4 12		1904 -1.8 -55		1942 0.5 15		2032 -0.8 -24		2003 0.1 3		2059 -0.1 -3
5 M	0059 9.4 287	20 Tu	0119 10.8 329	5 Th	0155 8.7 265	20 F	0252 9.6 293	5 Sa	0218 8.8 268	20 Su	0319 9.2 280
	0700 1.1 34		0720 -0.5 -15		0752 1.6 49		0847 0.8 24		0814 1.3 40		0915 1.1 34
	1309 9.8 299		1333 11.8 360		1359 9.7 296		1502 10.5 320		1422 9.9 302		1529 9.7 296
	1927 0.6 18		1958 -1.4 -43		2026 0.6 18		2128 -0.1 -3		2050 0.2 6		2150 0.4 12
6 Tu	0139 9.1 277	21 W	0214 10.3 314	6 F	0241 8.6 262	21 Sa	0351 9.2 280	6 Su	0306 8.8 268	21 M	0412 9.0 274
	0739 1.3 40		0814 0.0 0		0838 1.8 55		0945 1.2 37		0905 1.3 40		1011 1.4 43
	1348 9.7 296		1428 11.3 344		1445 9.6 293		1602 9.9 302		1513 9.8 299		1625 9.2 280
	2009 0.8 24		2054 -0.8 -24		2115 0.7 21		2226 0.4 12		2141 0.2 6		2242 0.9 27
7 W	0221 8.8 268	22 Th	0313 9.7 296	7 Sa	0330 8.5 259	22 Su	0451 9.0 274	7 M	0357 9.0 274	22 Tu	0505 8.9 271
	0821 1.6 49		0910 0.7 21		0929 1.9 58		1046 1.5 46		1001 1.2 37		1109 1.6 49
	1429 9.5 290		1526 10.7 326		1537 9.5 290		1703 9.4 287		1609 9.7 296		1722 8.7 265
	2054 1.0 30		2154 -0.2 -6		2208 0.8 24		2325 0.8 24		2235 0.2 6		2335 1.2 37
8 Th	0307 8.5 259	23 F	0416 9.3 283	8 Su	0424 8.5 259	23 M	0550 8.9 271	8 Tu	0452 9.3 283	23 W	0558 8.9 271
	0906 1.9 58		1010 1.2 37		1025 1.8 55		1149 1.6 49		1100 1.0 30		1207 1.6 49
	1516 9.3 283		1629 10.1 308		1634 9.5 290		1805 9.1 277		1709 9.7 296		1820 8.5 259
	2143 1.2 37		2256 0.4 12		2303 0.7 21				2331 0.2 6		
9 F	0358 8.3 253	24 Sa	0521 9.0 274	9 M	0521 8.8 268	24 Tu	0023 1.0 30	9 W	0548 9.7 296	24 Th	0027 1.4 43
	0957 2.0 61		1114 1.5 46		1125 1.5 46		0646 9.0 274		1201 0.6 18		0649 9.0 274
	1607 9.3 283		1735 9.7 296		1734 9.6 293		1250 1.5 46		1810 9.7 296		1304 1.4 43
	2237 1.2 37						1904 9.0 274				1916 8.4 256
10 Sa	0453 8.3 253	25 Su	0000 0.7 21	10 Tu	0001 0.5 15	25 W	0116 1.2 37	10 Th	0028 0.0 0	25 F	0118 1.5 46
	1053 2.1 64		0625 8.9 271		0617 9.3 283		0737 9.2 280		0644 10.2 311		0738 9.1 277
	1704 9.3 283		1220 1.6 49		1225 1.0 30		1345 1.3 40		1302 0.0 0		1357 1.2 37
	2334 1.1 34		1840 9.5 290		1835 9.9 302		1958 8.9 271		1912 9.8 299		2009 8.4 256
11 Su	0550 8.4 256	26 M	0102 0.8 24	11 W	0057 0.1 3	26 Th	0204 1.2 37	11 F	0124 -0.2 -6	26 Sa	0205 1.5 46
	1152 1.8 55		0724 9.0 274		0713 9.9 302		0822 9.4 287		0740 10.8 329		0824 9.4 287
	1803 9.6 293		1322 1.4 43		1325 0.3 9		1434 1.0 30		1402 -0.6 -18		1445 0.9 27
			1940 9.5 290		1935 10.2 311		2047 9.0 274		2012 10.0 305		2058 8.5 259
12 M	0032 0.8 24	27 Tu	0157 0.8 24	12 Th	0152 -0.3 -9	27 F	0247 1.2 37	12 Sa	0219 -0.4 -12	27 Su	0251 1.4 43
	0648 8.8 268		0816 9.3 283		0806 10.6 323		0904 9.6 293		0834 11.4 347		0907 9.6 293
	1251 1.4 43		1417 1.2 37		1422 -0.4 -12		1519 0.7 21		1458 -1.2 -37		1530 0.5 15
	1902 9.9 302		2033 9.5 290		2032 10.6 323		2131 9.0 274		2110 10.2 311		2144 8.6 262
13 Tu	0128 0.3 9	28 W	0244 0.8 24	13 F	0245 -0.6 -18	28 Sa	0328 1.1 34	13 Su	0313 -0.5 -15	28 M	0334 1.3 40
	0743 9.4 287		0901 9.5 290		0858 11.3 344		0942 9.9 302		0927 11.8 360		0949 9.9 302
	1349 0.7 21		1505 0.9 27		1517 -1.2 -37		1600 0.4 12		1553 -1.6 -49		1612 0.2 6
	2000 10.4 317		2119 9.6 293		2128 10.9 332		2213 9.1 277		2206 10.3 314		2227 8.7 265
14 W	0222 -0.2 -6	29 Th	0325 0.8 24	14 Sa	0336 -0.9 -27	29 Su	0407 1.1 34	14 M	0405 -0.6 -18	29 Tu	0417 1.1 34
	0835 10.2 311		0940 9.7 296		0948 11.9 363		1020 10.0 305		1019 12.0 366		1030 10.1 308
	1444 -0.1 -3		1547 0.6 18		1610 -1.7 -52		1639 0.2 6		1646 -1.9 -58		1653 0.0 0
	2055 10.9 332		2201 9.6 293		2222 11.0 335		2253 9.1 277		2300 10.4 317		2308 8.8 268
15 Th	0313 -0.7 -21	30 F	0403 0.8 24	15 Su	0426 -1.0 -30	30 M	0445 1.1 34	15 Tu	0457 -0.6 -18	30 W	0458 1.0 30
	0925 10.9 332		1017 9.9 302		1038 12.2 372		1057 10.1 308		1110 12.0 366		1110 10.3 314
	1537 -0.8 -24		1627 0.4 12		1702 -2.0 -61		1718 0.1 3		1737 -1.9 -58		1734 -0.2 -6
	2149 11.3 344		2240 9.6 293		2315 11.0 335		2332 9.0 274		2352 10.3 314		2348 9.0 274
		31 Sa	0439 0.8 24							31 Th	0540 0.8 24
			1051 10.0 305								1151 10.4 317
			1705 0.2 6								1815 -0.4 -12
			2318 9.5 290								

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Nantucket, Massachusetts, 2020

Times and Heights of High and Low Waters

April				May				June			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm
1 W	0532 3.3 101 1151 0.1 -3 1822 2.5 76 2348 0.6 18	16 Th	0025 0.5 15 0708 3.3 101 1319 0.2 6 2003 2.7 82	1 F	0602 3.4 104 1217 0.0 0 1852 2.8 85	16 Sa	0059 0.6 18 0729 3.0 91 1331 0.4 12 2010 2.9 88	1 M	0114 0.1 -3 0745 3.3 101 1337 0.0 0 2017 3.6 110	16 Tu	0215 0.6 18 0831 2.7 82 1415 0.7 21 2047 3.2 98
2 Th	0628 3.3 101 1247 0.1 -3 1916 2.5 76	17 F	0127 0.6 18 0809 3.1 94 1413 0.3 9 2056 2.7 82	2 Sa	0026 0.4 12 0702 3.4 104 1312 -0.1 -3 1946 3.0 91	17 Su	0157 0.6 18 0824 2.9 88 1418 0.5 15 2054 3.0 91	2 Tu	0216 -0.1 -3 0847 3.2 98 1430 0.0 0 2111 3.8 116	17 W	0305 0.5 15 0923 2.6 79 1457 0.7 21 2130 3.3 101
3 F	0047 0.4 12 0726 3.4 104 1342 0.0 0 2011 2.7 82	18 Sa	0225 0.5 15 0905 3.0 91 1502 0.3 9 2142 2.8 85	3 Su	0129 0.2 6 0803 3.4 104 1405 -0.1 -3 2040 3.3 101	18 M	0250 0.5 15 0916 2.8 85 1501 0.5 15 2134 3.1 94	3 W	0316 -0.3 -9 0949 3.1 94 1523 0.0 0 2204 4.0 122	18 Th	0351 0.4 12 1012 2.6 79 1538 0.7 21 2212 3.4 104
4 Sa	0147 0.3 9 0825 3.5 107 1436 -0.1 -3 2105 2.9 88	19 Su	0318 0.5 15 0956 3.0 91 1545 0.4 12 2221 2.9 88	4 M	0230 -0.1 -3 0904 3.4 104 1458 -0.2 -6 2133 3.5 107	19 Tu	0339 0.4 12 1004 2.7 82 1541 0.6 18 2212 3.2 98	4 Th	0414 -0.4 -12 1049 3.1 94 1614 0.0 0 2257 4.1 125	19 F	0433 0.3 9 1058 2.6 79 1618 0.7 21 2254 3.5 107
5 Su	0246 0.0 0 0924 3.6 110 1528 -0.2 -6 2158 3.2 98	20 M	0405 0.4 12 1041 2.9 88 1623 0.4 12 2256 3.0 91	5 Tu	0329 -0.3 -9 1004 3.4 104 1549 -0.2 -6 2225 3.8 116	20 W	0423 0.3 9 1049 2.7 82 1619 0.6 18 2250 3.3 101	5 F	0509 -0.5 -15 1147 3.0 91 1706 0.1 3 2349 4.2 128	20 Sa	0515 0.2 6 1143 2.6 79 1659 0.7 21 2337 3.6 110
6 M	0344 -0.2 -6 1022 3.6 110 1618 -0.3 -9 2250 3.4 104	21 Tu	0449 0.3 9 1122 2.8 85 1700 0.5 15 2329 3.1 94	6 W	0427 -0.5 -15 1103 3.3 101 1639 -0.2 -6 2317 4.0 122	21 Th	0504 0.2 6 1132 2.6 79 1657 0.7 21 2328 3.4 104	6 Sa	0602 -0.6 -18 1243 3.0 91 1757 0.1 3	21 Su	0556 0.1 3 1227 2.6 79 1740 0.7 21
7 Tu	0441 -0.5 -15 1119 3.6 110 1707 -0.4 -12 2341 3.7 113	22 W	0530 0.2 6 1201 2.8 85 1735 0.5 15	7 Th	0523 -0.7 -21 1200 3.3 101 1730 -0.2 -6	22 F	0544 0.1 3 1214 2.6 79 1734 0.7 21	7 Su	0041 4.2 128 0654 -0.5 -15 1336 3.0 91 1849 0.2 6	22 M	0020 3.7 113 0637 0.0 0 1312 2.7 82 1824 0.6 18
8 W	0536 -0.7 -21 1215 3.6 110 1756 -0.4 -12	23 Th	0004 3.2 98 0609 0.1 3 1240 2.8 85 1811 0.5 15	8 F	0009 4.1 125 0617 -0.7 -21 1257 3.2 98 1820 -0.1 -3	23 Sa	0007 3.4 104 0623 0.1 3 1256 2.6 79 1812 0.7 21	8 M	0133 4.0 122 0745 -0.4 -12 1429 2.9 88 1941 0.3 9	23 Tu	0105 3.8 116 0720 -0.1 -3 1357 2.7 82 1910 0.5 15
9 Th	0032 3.9 119 0632 -0.8 -24 1311 3.5 107 1846 -0.3 -9	24 F	0039 3.2 98 0648 0.1 3 1320 2.7 82 1847 0.6 18	9 Sa	0101 4.2 128 0711 -0.7 -21 1353 3.1 94 1912 0.0 0	24 Su	0047 3.5 107 0703 0.0 0 1338 2.6 79 1852 0.7 21	9 Tu	0224 3.9 119 0836 -0.3 -9 1519 2.9 88 2035 0.5 15	24 W	0152 3.8 116 0805 -0.1 -3 1444 2.8 85 2000 0.5 15
10 F	0124 4.0 122 0727 -0.8 -24 1407 3.3 101 1936 -0.2 -6	25 Sa	0117 3.3 101 0728 0.0 0 1401 2.7 82 1924 0.6 18	10 Su	0154 4.1 125 0805 -0.6 -18 1448 3.0 91 2005 0.2 6	25 M	0129 3.5 107 0745 0.0 0 1422 2.6 79 1934 0.6 18	10 W	0316 3.7 113 0927 -0.1 -3 1609 2.9 88 2130 0.6 18	25 Th	0242 3.8 116 0852 -0.1 -3 1532 2.9 88 2054 0.4 12
11 Sa	0217 4.0 122 0823 -0.7 -21 1504 3.2 98 2029 0.0 0	26 Su	0156 3.3 101 0809 0.0 0 1444 2.6 79 2003 0.6 18	11 M	0247 4.0 122 0859 -0.4 -12 1543 2.9 88 2059 0.3 9	26 Tu	0213 3.6 110 0829 -0.1 -3 1507 2.6 79 2020 0.6 18	11 Th	0407 3.5 107 1018 0.1 3 1659 2.9 88 2227 0.6 18	26 F	0334 3.7 113 0941 -0.1 -3 1622 3.1 94 2152 0.3 9
12 Su	0311 3.9 119 0920 -0.5 -15 1602 3.0 91 2124 0.1 3	27 M	0238 3.4 104 0852 0.0 0 1529 2.6 79 2046 0.6 18	12 Tu	0342 3.8 116 0955 -0.2 -6 1639 2.9 88 2156 0.5 15	27 W	0300 3.6 110 0915 -0.1 -3 1555 2.7 82 2111 0.6 18	12 F	0459 3.3 101 1108 0.2 6 1747 2.9 88 2325 0.7 21	27 Sa	0430 3.6 110 1032 -0.1 -3 1714 3.3 101 2254 0.3 9
13 M	0407 3.8 116 1019 -0.3 -9 1701 2.9 88 2221 0.3 9	28 Tu	0323 3.4 104 0939 0.0 0 1616 2.6 79 2133 0.6 18	13 W	0438 3.5 107 1051 -0.1 -3 1734 2.8 85 2256 0.6 18	28 Th	0351 3.6 110 1005 -0.1 -3 1645 2.8 85 2207 0.5 15	13 Sa	0551 3.1 94 1157 0.4 12 1834 3.0 91	28 Su	0528 3.4 104 1124 0.0 0 1807 3.5 107 2357 0.2 6
14 Tu	0506 3.6 110 1119 -0.1 -3 1802 2.8 85 2322 0.5 15	29 W	0412 3.4 104 1029 0.0 0 1706 2.6 79 2226 0.6 18	14 Th	0534 3.3 101 1146 0.1 3 1829 2.8 85 2358 0.6 18	29 F	0445 3.5 107 1057 -0.1 -3 1736 2.9 88 2307 0.4 12	14 Su	0024 0.7 21 0645 2.9 88 1245 0.5 15 1920 3.1 94	29 M	0628 3.3 101 1218 0.0 0 1902 3.7 113
15 W	0607 3.4 104 1220 0.0 0 1904 2.7 82	30 Th	0505 3.4 104 1122 0.0 0 1758 2.6 79 2324 0.5 15	15 F	0632 3.1 94 1241 0.3 9 1922 2.8 85	30 Sa	0543 3.5 107 1150 -0.1 -3 1829 3.1 94	15 M	0122 0.6 18 0738 2.8 85 1331 0.6 18 2004 3.1 94	30 Tu	0101 0.1 3 0731 3.1 94 1312 0.1 3 1957 3.9 119
						31 Su	0010 0.3 9 0643 3.4 104 1243 -0.1 -3 1923 3.4 104				

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Woods Hole, Massachusetts, 2020

Times and Heights of High and Low Waters

January				February				March						
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height	
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm
1 W	0014	1.4	43		16 Th	0014	2.0	61		1 Sa	0113	1.4	43	
	0641	0.6	18			0743	-0.1	-3			0817	0.5	15	
	1237	1.6	49			1238	1.9	58			1328	1.2	37	
	2001	0.4	12			2014	-0.2	-6			1955	0.4	12	
2 Th	0106	1.3	40		17 F	0112	2.0	61		2 Su	0205	1.4	43	
	0801	0.6	18			0900	-0.1	-3			0920	0.4	12	
	1325	1.4	43			1333	1.7	52			1420	1.1	34	
	2014	0.4	12			2110	-0.2	-6			2043	0.4	12	
3 F	0159	1.4	43		18 Sa	0212	2.1	64		3 M	0302	1.5	46	
	0917	0.6	18			1011	-0.1	-3			1019	0.3	9	
	1415	1.2	37			1431	1.5	46			1515	1.1	34	
	2046	0.4	12			2206	-0.1	-3			2132	0.3	9	
4 Sa	0255	1.4	43		19 Su	0314	2.1	64		4 Tu	0400	1.6	49	
	1008	0.5	15			1117	-0.2	-6			1114	0.2	6	
	1507	1.2	37			1531	1.4	43			1612	1.2	37	
	2123	0.4	12			2303	-0.1	-3			2222	0.2	6	
5 Su	0350	1.6	49		20 M	0415	2.2	67		5 W	0454	1.9	58	
	1054	0.4	12			1220	-0.2	-6			1209	0.1	3	
	1559	1.2	37			1628	1.3	40			1704	1.3	40	
	2204	0.3	9								2315	0.0	0	
6 M	0440	1.7	52		21 Tu	0001	0.0	0		6 Th	0543	2.1	64	
	1144	0.3	9			0511	2.3	70			1301	-0.1	-3	
	1649	1.2	37			1317	-0.3	-9			1754	1.5	46	
	2248	0.2	6			1721	1.4	43						
7 Tu	0526	1.9	58		22 W	0058	0.0	0		7 F	0630	2.4	73	
	1235	0.1	3			0602	2.3	70			1350	-0.3	-9	
	1735	1.3	40			1407	-0.3	-9			1842	1.7	52	
	2336	0.1	3			1811	1.4	43						
8 W	0610	2.2	67		23 Th	0147	0.0	0		8 Sa	0716	2.5	76	
	1325	-0.1	-3			0649	2.4	73			1437	-0.4	-12	
	1820	1.5	46			1453	-0.3	-9			1930	1.9	58	
						1857	1.5	46						
9 Th	0028	-0.1	-3		24 F	0227	0.0	0		9 Su	0209	-0.5	-15	
	0653	2.4	73			0734	2.4	73			0803	2.6	79	
	1413	-0.2	-6			1534	-0.2	-6			1523	-0.5	-15	
	1905	1.6	49			1943	1.6	49			2019	2.1	64	
10 F	0123	-0.2	-6		25 Sa	0250	0.0	0		10 M	0307	-0.5	-15	
	0737	2.5	76			0818	2.3	70			0940	2.5	76	
	1501	-0.3	-9			1611	-0.1	-3			1609	-0.6	-18	
	1951	1.7	52			2029	1.6	49			2110	2.2	67	
11 Sa	0218	-0.3	-9		26 Su	0305	0.1	3		11 Tu	0406	-0.5	-15	
	0823	2.6	79			0902	2.2	67			0940	2.5	76	
	1548	-0.4	-12			1643	0.0	0			1657	-0.5	-15	
	2040	1.8	55			2116	1.6	49			2203	2.2	67	
12 Su	0314	-0.3	-9		27 M	0337	0.1	3		12 W	0508	-0.5	-15	
	0911	2.6	79			0946	2.1	64			1031	2.3	70	
	1637	-0.4	-12			1704	0.1	3			1748	-0.4	-12	
	2130	1.9	58			2203	1.6	49			2257	2.3	70	
13 M	0412	-0.3	-9		28 Tu	0418	0.2	6		13 Th	0618	-0.3	-9	
	1000	2.5	76			1031	1.9	58			1123	2.0	61	
	1728	-0.4	-12			1719	0.2	6			1844	-0.3	-9	
	2223	1.9	58			2250	1.5	46			2352	2.2	67	
14 Tu	0514	-0.2	-6		29 W	0507	0.3	9		14 F	0735	-0.2	-6	
	1052	2.4	73			1115	1.7	52			1215	1.8	55	
	1821	-0.4	-12			1747	0.3	9			1945	-0.1	-3	
	2318	2.0	61			2338	1.5	46						
15 W	0625	-0.1	-3		30 Th	0603	0.4	12		15 Sa	0049	2.1	64	
	1144	2.2	67			1158	1.5	46			0850	-0.2	-6	
	1917	-0.3	-9			1825	0.3	9			1310	1.5	46	
											2050	0.0	0	
16 Th					31 F	0025	1.4	43						
						0708	0.5	15						
						1242	1.3	40						
						1909	0.4	12						

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.

Heights are referred to mean lower low water which is the chart datum of soundings.

* See Page 320 for the remaining tides on this day.

Woods Hole, Massachusetts, 2020

Times and Heights of High and Low Waters

July				August				September										
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height					
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm				
1 W	0420	1.8	55		16 Th	0430	1.4	43		1 Sa	0138	0.0	0					
	1119	0.1	3			1020	0.5	15			0547	1.8	55		16 Su	0037	0.3	9
	1658	2.8	85			1710	2.1	64			1317	0.3	9			0534	1.7	52
2 Th	0052	-0.1	-3		17 F	0026	0.5	15		2 Su	0227	0.0	0		1 Tu	0246	0.2	6
	0516	1.8	55			0518	1.5	46			0636	1.9	58			0701	2.0	61
	1213	0.1	3			1108	0.5	15			1408	0.3	9			1443	0.3	9
3 F	0149	-0.2	-6		18 Sa	0111	0.3	9		3 M	0312	0.0	0		2 W	0319	0.3	9
	0608	1.8	55			0603	1.6	49			0723	1.9	58			0746	2.1	64
	1310	0.1	3			1200	0.4	12			1451	0.3	9			1509	0.3	9
4 Sa	0241	-0.2	-6		19 Su	0155	0.2	6		4 Tu	0353	0.1	3		3 Th	0339	0.3	9
	0657	1.9	58			0648	1.7	52			0810	2.0	61			0830	2.2	67
	1406	0.2	6			1256	0.3	9			1526	0.3	9			1526	0.4	12
5 Su	0330	-0.2	-6		20 M	0240	0.1	3		5 W	0430	0.2	6		4 F	0340	0.4	12
	0746	1.9	58			0732	1.9	58			0857	2.0	61			0915	2.2	67
	1456	0.2	6			1353	0.2	6			1552	0.4	12			1556	0.4	12
6 M	0418	-0.1	-3		21 Tu	0325	0.0	0		6 Th	0501	0.3	9		5 Sa	0359	0.5	15
	0835	1.9	58			0819	2.0	61			2126	2.4	73			1000	2.1	64
	1540	0.3	9			1449	0.1	3			2212	2.2	67			1639	0.5	15
7 Tu	0504	0.0	0		22 W	0410	-0.1	-3		7 F	0517	0.4	12		6 Su	0430	0.6	18
	0924	1.9	58			0908	2.1	64			0945	2.0	61			1046	2.1	64
	1622	0.4	12			1546	0.1	3			1625	0.5	15			1729	0.6	18
8 W	0550	0.1	3		23 Th	0457	-0.1	-3		8 Sa	0533	0.6	18		7 M	0508	0.6	18
	1015	1.8	55			0959	2.2	67			1122	1.9	58			1132	2.0	61
	1705	0.5	15			1646	0.1	3			1802	0.7	21			1830	0.6	18
9 Th	0637	0.3	9		24 F	0547	-0.1	-3		9 Su	0604	0.6	18		8 Tu	0553	0.7	21
	1105	1.8	55			1052	2.3	70			1210	1.9	58			1218	1.9	58
	1800	0.6	18			1752	0.2	6			1910	0.8	24			1939	0.7	21
10 F	0722	0.4	12		25 Sa	0638	0.0	0		10 M	0627	1.6	49		9 W	0037	1.4	43
	1156	1.8	55			1146	2.4	73			0643	0.7	21			0341	0.8	24
	1933	0.7	21			1905	0.2	6			1259	1.8	55			0514	0.9	27
11 Sa	0018	1.9	58		26 Su	0008	2.2	67		11 Tu	0114	1.5	46		10 Th	0647	0.8	24
	0755	0.6	18			0732	0.1	3			0204	1.4	43			1307*	1.8	55
	1247	1.8	55			1242	2.4	73			0729	0.8	24			0127	1.4	43
12 Su	0105	1.7	52		27 M	0102	2.0	61		12 W	0204	1.4	43		11 F	0422	0.8	24
	0755	0.6	18			0827	0.1	3			0817	0.8	24			0602	0.9	27
	1339	1.7	52			1340	2.5	76			1446	1.8	55			0745	0.8	24
13 M	0154	1.5	46		28 Tu	0159	1.8	55		13 Th	0258	1.3	40		11 Sa	1401*	1.8	55
	0820	0.7	21			0922	0.2	6			0906	0.7	21			0221	1.3	40
	1434	1.8	55			1441	2.5	76			1543	1.9	58			0514	0.8	24
14 Tu	0246	1.4	43		29 W	0259	1.7	52		14 F	0353	1.4	43		12 Su	0640	0.9	27
	0855	0.7	21			1017	0.2	6			0956	0.6	18			0843	0.7	21
	1529	1.8	55			1542	2.6	79			1637	2.1	64			1501*	1.9	58
15 W	0339	1.4	43		30 Th	0358	1.6	49		15 Sa	0446	1.5	46		13 M	0319	1.4	43
	0936	0.6	18			1116	0.3	9			1048	0.5	15			0938	0.6	18
	1622	2.0	61			1641	2.6	79			1725	2.3	70			1600	2.0	61
16 Th	0043	0.0	0		31 F	0043	0.0	0		16 Su	0206	0.1	3		14 Tu	0049	0.1	3
	0455	1.7	52			0455	1.7	52			0528	1.8	55			0507	1.8	55
	1217	0.3	9			1217	0.3	9			1319	0.3	9			1130	0.2	6
17 F	1735	2.7	82		1 Sa	1735	2.7	82		17 M	0206	0.1	3		15 W	1230	0.0	0
						0616	1.9	58			1806	2.5	76			1828	2.6	79
						1405	0.3	9										

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.

Heights are referred to mean lower low water which is the chart datum of soundings.

* See Page 320 for the remaining tides on this day.

Newport, Rhode Island, 2020
Times and Heights of High and Low Waters

Table with columns for January, February, and March. Each month has sub-columns for Time and Height in hours/minutes/feet and centimeters. Rows represent days of the month with specific tide data.

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Newport, Rhode Island, 2020

Times and Heights of High and Low Waters

April				May				June							
Time		Height		Time		Height		Time		Height		Time		Height	
h	m	ft	cm	h	m	ft	cm	h	m	ft	cm	h	m	ft	cm
1	0048	3.1	94	16	0242	3.2	98	1	0130	3.5	107	16	0302	3.1	94
W	0645	0.6	18	Th	0938	0.7	21	F	0741	0.6	18	Sa	0910	0.9	27
○	1330	2.7	82	○	1511	3.1	94	○	1411	3.4	104	○	1533	3.4	104
	1843	0.4	12		2145	0.8	24		1943	0.6	18		2147	0.9	27
2	0150	3.1	94	17	0347	3.1	94	2	0233	3.6	110	17	0358	3.1	94
Th	0821	0.6	18	F	1016	0.7	21	Sa	0854	0.4	12	Su	0942	0.7	21
	1432	2.9	88		1612	3.2	98		1514	3.7	113		1627	3.5	107
	2002	0.4	12		2226	0.7	21		2104	0.4	12		2227	0.8	24
3	0257	3.3	101	18	0443	3.2	98	3	0339	3.7	113	18	0448	3.1	94
F	0934	0.3	9	Sa	1042	0.6	18	Su	0947	0.2	6	M	1014	0.6	18
	1538	3.2	98		1704	3.4	104		1616	4.1	125		1712	3.6	110
	2119	0.1	3		2300	0.5	15		2211	0.1	3		2305	0.6	18
4	0406	3.5	107	19	0530	3.3	101	4	0442	3.9	119	19	0531	3.2	98
Sa	1025	0.1	3	Su	1106	0.4	12	M	1033	0.0	0	Tu	1048	0.5	15
	1640	3.6	110		1748	3.5	107		1713	4.5	137		1751	3.8	116
	2224	-0.2	-6		2333	0.4	12		2309	-0.1	-3		2343	0.5	15
5	0507	3.9	119	20	0609	3.4	104	5	0539	4.1	125	20	0609	3.3	101
Su	1109	-0.2	-6	M	1133	0.3	9	Tu	1117	-0.2	-6	W	1124	0.3	9
	1736	4.1	125		1826	3.7	113		1807	4.9	149		1826	3.9	119
	2321	-0.5	-15												
6	0602	4.2	128	21	0009	0.2	6	6	0003	-0.3	-9	21	0023	0.3	9
M	1151	-0.4	-12	Tu	0645	3.4	104	W	0632	4.3	131	Th	0646	3.4	104
	1828	4.5	137		1205	0.2	6		1201	-0.3	-9		1201	0.3	9
					1900	3.8	116		1857	5.1	155		1900	4.0	122
7	0016	-0.7	-21	22	0047	0.1	3	7	0057	-0.4	-12	22	0103	0.3	9
Tu	0653	4.4	134	W	0719	3.4	104	Th	0723	4.3	131	F	0723	3.4	104
○	1234	-0.6	-18	○	1238	0.1	3	○	1246	-0.3	-9	○	1239	0.2	6
	1917	4.8	146		1933	3.9	119		1947	5.2	158		1934	4.1	125
8	0109	-0.7	-21	23	0125	0.0	0	8	0149	-0.3	-9	23	0142	0.2	6
W	0742	4.4	134	Th	0753	3.4	104	F	0813	4.3	131	Sa	0801	3.5	107
	1318	-0.7	-21		1313	0.1	3		1332	-0.3	-9		1318	0.2	6
	2007	5.0	152		2004	3.9	119		2037	5.1	155		2011	4.1	125
9	0202	-0.7	-21	24	0202	0.0	0	9	0239	-0.2	-6	24	0220	0.2	6
Th	0832	4.3	131	F	0828	3.4	104	Sa	0904	4.2	128	Su	0842	3.5	107
	1401	-0.6	-18		1348	0.1	3		1419	-0.1	-3		1357	0.3	9
	2057	4.9	149		2037	3.8	116		2128	4.8	146		2051	4.0	122
10	0252	-0.6	-18	25	0237	0.1	3	10	0325	0.0	0	25	0256	0.3	9
F	0923	4.1	125	Sa	0905	3.3	101	Su	0956	4.0	122	M	0926	3.4	104
	1444	-0.5	-15		1423	0.1	3		1505	0.1	3		1437	0.3	9
	2148	4.7	143		2113	3.7	113		2221	4.5	137		2135	4.0	122
11	0339	-0.3	-9	26	0311	0.2	6	11	0410	0.3	9	26	0332	0.4	12
Sa	1015	3.9	119	Su	0946	3.2	98	M	1050	3.7	113	Tu	1013	3.4	104
	1528	-0.2	-6		1458	0.2	6		1552	0.4	12		1520	0.4	12
	2242	4.4	134		2153	3.6	110		2317	4.1	125		2224	3.9	119
12	0428	0.0	0	27	0345	0.3	9	12	0500	0.6	18	27	0411	0.5	15
Su	1111	3.6	110	M	1031	3.1	94	Tu	1147	3.6	110	W	1105	3.4	104
	1613	0.1	3		1536	0.3	9		1643	0.7	21		1606	0.5	15
	2340	4.0	122		2239	3.5	107						2318	3.8	116
13	0527	0.4	12	28	0423	0.5	15	13	0013	3.7	113	28	0458	0.5	15
M	1208	3.4	104	Tu	1122	3.0	91	W	0607	0.8	24	Th	1159	3.5	107
	1705	0.5	15		1620	0.4	12		1243	3.4	104		1701	0.6	18
					2332	3.5	107		1746	1.0	30				
14	0039	3.7	113	29	0511	0.6	18	14	0109	3.5	107	29	0014	3.8	116
Tu	0718	0.6	18	W	1216	3.1	94	Th	0736	0.9	27	F	0557	0.6	18
○	1307	3.2	98		1713	0.6	18	○	1339	3.3	101	○	1255	3.6	110
	1813	0.8	24						1924	1.1	34		1808	0.7	21
15	0139	3.4	104	30	0030	3.4	104	15	0205	3.3	101	30	0111	3.8	116
W	0843	0.7	21	Th	0617	0.7	21	F	0832	0.9	27	Sa	0706	0.5	15
	1408	3.1	94	○	1312	3.2	98		1436	3.3	101		1351	3.8	116
	2030	0.9	27		1822	0.6	18		2057	1.1	34		1930	0.7	21
												31	0211	3.7	113
												Su	0812	0.4	12
													1451	4.1	125
													2054	0.5	15

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Newport, Rhode Island, 2020

Times and Heights of High and Low Waters

July				August				September																																																																																																																																																																																																																																																																																																																							
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height																																																																																																																																																																																																																																																																																																																		
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm																																																																																																																																																																																																																																																																																																																	
1 W	0357	3.5	107		16 Th	0354	2.7	82		1 Sa	0541	3.4	104		16 Su	0508	2.9	88		1 Tu	0040	0.0	0		16 W	0623	3.9	119		2 Th	0037	-0.7	-21		17 Th	0711	4.2	128		2 W	0742	3.6	110		17 Th	0711	4.2	128		3 W	0742	3.6	110		18 F	0800	4.5	137		3 Th	0821	3.5	107		18 F	0800	4.5	137		4 W	0859	3.5	107		19 Sa	0850	4.6	140		4 Th	0912	4.2	128		20 Su	0941	4.5	137		5 Th	0912	4.2	128		20 Su	0941	4.5	137		5 Sa	0935	3.3	101		21 M	1036	4.4	134		6 M	1048	3.0	91		21 M	1036	4.4	134		7 M	1048	3.0	91		22 Tu	1133	4.1	125		7 W	1152	0.4	12		22 Tu	1133	4.1	125		8 W	1223	3.9	119		23 Th	1233	3.9	119		8 Th	1233	3.9	119		23 Th	1233	3.9	119		9 Th	1257	-0.5	-15		24 F	1335	3.6	110		9 Th	1335	3.6	110		24 F	1335	3.6	110		10 F	1440	3.4	104		25 Sa	1546	3.4	104		10 F	1440	3.4	104		25 Sa	1546	3.4	104		11 Sa	1637	3.3	101		26 Su	1546	3.4	104		11 Sa	1637	3.3	101		26 Su	1546	3.4	104		12 Su	1849	0.9	27		27 M	1618	4.0	122		12 Su	1849	0.9	27		27 M	1618	4.0	122		13 M	1849	0.9	27		28 Tu	1735	3.5	107		13 M	1849	0.9	27		28 Tu	1735	3.5	107		14 Tu	1919	0.4	12		29 W	1818	3.5	107		14 Tu	1919	0.4	12		29 W	1818	3.5	107		15 W	2005	0.9	27		30 Th	1857	3.6	110		15 W	2005	0.9	27		30 Th	1857	3.6	110		16 Th	2057	0.4	12		31 F	2202	0.7	21		31 F	2202	0.7	21		31 F	2202	0.7	21	

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Montauk, Fort Pond Bay, New York, 2020

Times and Heights of High and Low Waters

January				February				March										
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height					
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm				
1 W	0109	1.7	52		16 Th	0058	2.1	64		1 Su	0118	1.9	58					
	0745	0.4	12			0747	-0.2	-6			0816	0.3	9		16 M	0208	2.4	73
	1324	1.7	52			1316	1.9	58			1340	1.4	43			0916	0.0	0
	2006	0.1	3			2011	-0.4	-12			1956	0.5	15			1437	1.6	49
													2123	0.3		9		
2 Th	0204	1.7	52		17 F	0158	2.2	67		2 M	0208	1.9	58		17 Tu	0318	2.2	67
	0843	0.4	12			0853	-0.2	-6			0912	0.3	9			1019	0.1	3
	1417	1.5	46			1416	1.7	52			1436	1.3	40			1548	1.6	49
	2050	0.2	6			2106	-0.3	-9			2053	0.5	15			2229	0.3	9
3 F	0301	1.7	52		18 Sa	0301	2.2	67		3 M	0310	1.9	58		18 W	0429	2.1	64
	0938	0.3	9			0957	-0.2	-6			1007	0.2	6			1119	0.2	6
	1513	1.4	43			1625	1.5	46			1539	1.3	40			1657	1.6	49
	2133	0.2	6			2202	-0.2	-6			2151	0.4	12			2332	0.3	9
4 Sa	0358	1.8	55		19 Su	0404	2.3	70		4 M	0413	2.0	61		19 Th	0531	2.1	64
	1030	0.3	9			1059	-0.2	-6			1101	0.1	3			1213	0.2	6
	1609	1.3	40			1625	1.4	43			1638	1.4	43			1752	1.7	52
	2216	0.2	6			2258	-0.2	-6			2248	0.3	9					
5 Su	0449	1.9	58		20 M	0504	2.3	70		5 M	0510	2.1	64		20 F	0028	0.3	9
	1119	0.2	6			1158	-0.3	-9			1153	0.0	0			0620	2.1	64
	1700	1.3	40			1724	1.5	46			1731	1.6	49			1259	0.1	3
	2300	0.2	6			2354	-0.2	-6			2345	0.1	3			1837	1.9	58
6 M	0534	2.0	61		21 Tu	0558	2.4	73		6 F	0600	2.3	70		21 Sa	0115	0.2	6
	1207	0.0	0			1253	-0.3	-9			1243	-0.2	-6			0701	2.1	64
	1746	1.4	43			1817	1.5	46			1819	1.9	58			1338	0.1	3
	2346	0.1	3													1918	2.0	61
7 Tu	0615	2.2	67		22 W	0048	-0.2	-6		7 Sa	0041	-0.1	-3		22 Su	0156	0.1	3
	1253	-0.1	-3			0648	2.4	73			0647	2.5	76			0740	2.2	67
	1829	1.5	46			1342	-0.4	-12			1330	-0.4	-12			1412	0.1	3
						1906	1.6	49			1905	2.1	64			1957	2.2	67
8 W	0033	0.0	0		23 Th	0138	-0.2	-6		8 Su	0134	-0.4	-12		23 M	0234	0.1	3
	0655	2.3	70			0734	2.4	73			0733	2.7	82			0819	2.2	67
	1338	-0.3	-9			1428	-0.4	-12			1415	-0.5	-15			1444	0.1	3
	1911	1.6	49			1952	1.7	52			1953	2.4	73			2037	2.3	70
9 Th	0120	-0.1	-3		24 F	0225	-0.2	-6		9 M	0227	-0.6	-18		24 Tu	0311	0.0	0
	0735	2.4	73			0819	2.4	73			0820	2.7	82			0858	2.2	67
	1423	-0.4	-12			1509	-0.4	-12			1500	-0.6	-18			1516	0.1	3
	1954	1.7	52			2039	1.7	52			2041	2.6	79			2117	2.4	73
10 F	0207	-0.2	-6		25 Sa	0309	-0.2	-6		10 M	0319	-0.7	-21		25 W	0348	0.0	0
	0817	2.5	76			0904	2.3	70			0909	2.7	82			0939	2.1	64
	1508	-0.6	-18			1549	-0.4	-12			1545	-0.6	-18			1548	0.1	3
	2039	1.7	52			2125	1.8	55			2131	2.8	85			2157	2.4	73
11 Sa	0255	-0.3	-9		26 Su	0351	-0.1	-3		11 M	0412	-0.7	-21		26 Th	0427	0.0	0
	0902	2.6	79			0949	2.2	67			0958	2.6	79			1019	2.0	61
	1554	-0.6	-18			1628	-0.3	-9			1631	-0.6	-18			1622	0.2	6
	2127	1.8	55			2212	1.8	55			2222	2.9	88			2236	2.4	73
12 Su	0345	-0.4	-12		27 M	0434	-0.1	-3		12 M	0507	-0.6	-18		27 F	0510	0.1	3
	0949	2.6	79			1033	2.1	64			1048	2.4	73			1100	1.9	58
	1642	-0.6	-18			1707	-0.2	-6			1720	-0.4	-12			1657	0.3	9
	2218	1.9	58			2258	1.8	55			2314	2.9	88			2315	2.3	70
13 M	0439	-0.4	-12		28 Tu	0520	0.0	0		13 F	0606	-0.5	-15		28 Sa	0557	0.2	6
	1038	2.5	76			1117	2.0	61			1140	2.2	67			1141	1.8	55
	1731	-0.6	-18			1747	-0.1	-3			1814	-0.2	-6			1736	0.5	15
	2309	2.0	61			2344	1.8	55								2352	2.2	67
14 Tu	0537	-0.3	-9		29 W	0609	0.1	3		14 Sa	0008	2.8	85		29 Su	0649	0.2	6
	1129	2.4	73			1201	1.8	55			0708	-0.3	-9			1223	1.7	52
	1823	-0.5	-15			1828	0.0	0			1233	1.9	58			1822	0.6	18
											1913	0.0	0					
15 W	0003	2.1	64		30 Th	0031	1.8	55		15 Su	0105	2.6	79		30 M	0031	2.1	64
	0641	-0.3	-9			0703	0.2	6			0812	-0.1	-3			0744	0.3	9
	1221	2.2	67			1245	1.6	49			1331	1.7	52			1308	1.6	49
	1916	-0.5	-15			1911	0.1	3			2017	0.2	6			1920	0.7	21
				31 F	0119	1.8	55							31 Tu	0117	2.1	64	
					0759	0.2	6						0841		0.3	9		
					1332	1.4	43						1402		1.5	46		
					1956	0.2	6						2024		0.7	21		

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Montauk, Fort Pond Bay, New York, 2020

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	h m	ft	h m	ft	h m	ft	h m	ft	h m	ft
1 Th	0226 0.3 9 0816 2.6 79 1455 0.3 9 2035 2.4 73	16 F	0202 -0.2 -6 0751 3.3 101 1437 -0.4 -12 2014 2.8 85	1 Su	0253 0.4 12 0907 2.7 82 1547 0.2 6 2129 2.0 61	16 M	0309 -0.3 -9 0909 3.4 104 1605 -0.6 -18 2135 2.3 70	1 Tu	0301 0.2 6 0921 2.5 76 1604 -0.1 -3 2146 1.7 52	16 W	0344 -0.4 -12 0945 2.9 88 1639 -0.6 -18 2211 2.0 61
2 F	0258 0.4 12 0856 2.7 82 1533 0.3 9 2115 2.4 73	17 Sa	0247 -0.2 -6 0839 3.4 104 1529 -0.4 -12 2104 2.7 82	2 M	0327 0.4 12 0947 2.6 79 1628 0.2 6 2212 2.0 61	17 Tu	0400 -0.2 -6 1003 3.2 98 1659 -0.4 -12 2230 2.2 67	2 W	0341 0.3 9 1001 2.4 73 1649 -0.1 -3 2231 1.7 52	17 Th	0438 -0.2 -6 1038 2.7 82 1731 -0.4 -12 2305 1.9 58
3 Sa	0330 0.4 12 0937 2.7 82 1612 0.3 9 2158 2.3 70	18 Su	0333 -0.2 -6 0930 3.5 107 1622 -0.4 -12 2156 2.5 76	3 Tu	0403 0.5 15 1027 2.5 76 1713 0.3 9 2257 1.9 58	18 W	0456 -0.1 -3 1058 3.0 91 1756 -0.2 -6 2326 2.0 61	3 Th	0424 0.3 9 1042 2.3 70 1737 0.0 0 2317 1.7 52	18 F	0536 -0.1 -3 1131 2.5 76 1825 -0.3 -9
4 Su	0403 0.5 15 1018 2.7 82 1654 0.4 12 2241 2.2 67	19 M	0422 -0.1 -3 1023 3.4 104 1718 -0.3 -9 2249 2.4 73	4 W	0443 0.6 18 1108 2.4 73 1804 0.3 9 2342 1.8 55	19 Th	0557 0.1 3 1154 2.7 82 1856 -0.1 -3	4 F	0514 0.4 12 1124 2.3 70 1829 0.0 0	19 Sa	0001 1.9 58 0638 0.1 3 1224 2.2 67 1920 -0.1 -3
5 M	0437 0.6 18 1100 2.6 79 1741 0.5 15 2324 2.0 61	20 Tu	0517 0.1 3 1118 3.2 98 1818 -0.1 -3 2345 2.2 67	5 Th	0531 0.7 21 1150 2.3 70 1858 0.4 12	20 F	0024 2.0 61 0704 0.3 9 1252 2.5 76 1956 0.1 3	5 Sa	0005 1.6 49 0613 0.5 15 1208 2.2 67 1922 0.0 0	20 Su	0057 1.8 55 0743 0.2 6 1317 1.9 58 2013 0.0 0
6 Tu	0515 0.7 21 1142 2.5 76 1833 0.6 18	21 W	0618 0.3 9 1216 3.0 91 1921 0.1 3	6 F	0030 1.7 52 0633 0.8 24 1236 2.3 70 1954 0.4 12	21 Sa	0126 1.9 58 0813 0.4 12 1353 2.2 67 2055 0.1 3	6 Su	0055 1.6 49 0719 0.5 15 1258 2.1 64 2015 0.0 0	21 M	0156 1.8 55 0846 0.3 9 1413 1.7 52 2103 0.1 3
7 W	0010 1.9 58 0601 0.9 27 1226 2.4 73 1929 0.6 18	22 Th	0044 2.1 64 0726 0.4 12 1317 2.7 82 2025 0.2 6	7 Sa	0123 1.7 52 0741 0.8 24 1330 2.2 67 2048 0.3 9	22 Su	0232 1.9 58 0920 0.5 15 1456 2.0 61 2148 0.2 6	7 M	0149 1.7 52 0824 0.4 12 1356 2.0 61 2105 0.0 0	22 Tu	0257 1.8 55 0946 0.3 9 1511 1.5 46 2149 0.2 6
8 Th	0058 1.8 55 0701 1.0 30 1314 2.3 70 2025 0.6 18	23 F	0149 2.0 61 0836 0.5 15 1424 2.5 76 2127 0.3 9	8 Su	0222 1.7 52 0845 0.7 21 1433 2.2 67 2139 0.2 6	23 M	0340 1.9 58 1022 0.5 15 1557 1.9 58 2237 0.3 9	8 Tu	0248 1.9 58 0926 0.2 6 1458 1.9 58 2153 -0.1 -3	23 W	0356 1.9 58 1042 0.3 9 1609 1.4 43 2232 0.2 6
9 F	0152 1.7 52 0806 1.0 30 1413 2.3 70 2120 0.6 18	24 Sa	0300 1.9 58 0944 0.6 18 1533 2.3 70 2224 0.3 9	9 M	0322 1.9 58 0946 0.6 18 1536 2.2 67 2227 0.1 3	24 Tu	0439 2.0 61 1118 0.4 12 1652 1.8 55 2320 0.3 9	9 W	0345 2.1 64 1026 0.0 0 1601 1.9 58 2242 -0.2 -6	24 Th	0449 2.0 61 1132 0.2 6 1701 1.4 43 2313 0.2 6
10 Sa	0254 1.8 55 0908 0.9 27 1517 2.3 70 2211 0.5 15	25 Su	0411 2.0 61 1047 0.6 18 1637 2.2 67 2316 0.4 12	10 Tu	0417 2.1 64 1044 0.3 9 1634 2.3 70 2314 0.0 0	25 W	0526 2.2 67 1208 0.3 9 1738 1.8 55 2358 0.3 9	10 Th	0440 2.4 73 1124 -0.2 -6 1659 1.9 58 2330 -0.3 -9	25 F	0536 2.1 64 1218 0.1 3 1748 1.4 43 2354 0.2 6
11 Su	0354 1.9 58 1006 0.8 24 1616 2.4 73 2300 0.4 12	26 M	0510 2.1 64 1144 0.5 15 1728 2.2 67	11 W	0507 2.4 73 1141 0.1 3 1726 2.3 70	26 Th	0607 2.3 70 1250 0.2 6 1820 1.8 55	11 F	0531 2.7 82 1221 -0.4 -12 1752 1.9 58	26 Sa	0618 2.1 64 1259 0.0 0 1832 1.5 46
12 M	0447 2.1 64 1103 0.5 15 1708 2.5 76 2347 0.2 6	27 Tu	0001 0.4 12 0555 2.3 70 1234 0.5 15 1811 2.2 67	12 Th	0000 -0.1 -3 0554 2.8 85 1236 -0.2 -6 1815 2.4 73	27 F	0034 0.3 9 0645 2.4 73 1329 0.2 6 1900 1.8 55	12 Sa	0020 -0.3 -9 0621 2.9 88 1315 -0.6 -18 1843 2.0 61	27 Su	0035 0.2 6 0659 2.2 67 1339 -0.1 -3 1913 1.5 46
13 Tu	0535 2.4 73 1158 0.3 9 1755 2.7 82	28 W	0040 0.4 12 0635 2.4 73 1316 0.4 12 1850 2.2 67	13 F	0046 -0.2 -6 0641 3.1 94 1329 -0.4 -12 1903 2.4 73	28 Sa	0110 0.3 9 0723 2.5 76 1406 0.1 3 1940 1.8 55	13 Su	0111 -0.4 -12 0711 3.1 94 1407 -0.7 -21 1933 2.0 61	28 M	0117 0.1 3 0739 2.3 70 1419 -0.2 -6 1955 1.6 49
14 W	0033 0.0 0 0619 2.7 82 1252 0.0 0 1841 2.8 85	29 Th	0115 0.4 12 0712 2.5 76 1355 0.3 9 1928 2.2 67	14 Sa	0133 -0.3 -9 0728 3.3 101 1422 -0.6 -18 1952 2.4 73	29 Su	0146 0.2 6 0802 2.5 76 1444 0.0 0 2020 1.8 55	14 M	0201 -0.5 -15 0801 3.1 94 1458 -0.7 -21 2024 2.0 61	29 Tu	0158 0.0 0 0818 2.3 70 1459 -0.3 -9 2038 1.6 49
15 Th	0117 -0.1 -3 0704 3.0 91 1345 -0.2 -6 1927 2.8 85	30 F	0148 0.4 12 0749 2.6 79 1431 0.2 6 2007 2.1 64	15 Su	0220 -0.3 -9 0818 3.4 104 1513 -0.6 -18 2043 2.3 70	30 M	0223 0.2 6 0841 2.5 76 1523 -0.1 -3 2103 1.8 55	15 Tu	0252 -0.4 -12 0853 3.1 94 1548 -0.7 -21 2117 2.0 61	30 W	0241 0.0 0 0858 2.3 70 1541 -0.3 -9 2121 1.6 49
		31 Sa	0220 0.4 12 0827 2.7 82 1508 0.2 6 2047 2.1 64						31 Th	0324 0.0 0 0938 2.3 70 1624 -0.3 -9 2206 1.6 49	

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Bayonne Bridge, Staten Island, New York, 2020

Times and Heights of High and Low Waters

July				August				September																																														
Time	Height			Time	Height			Time	Height			Time	Height																																									
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm																																			
1 W	0416	5.1	155	0	16 Th	0431	4.3	131	0	1 Sa	0025	0.0	0	0	16 Su	0007	0.5	15	0	1 Tu	0141	0.0	0	0	16 W	0114	-0.3	-9	0	16 W	0659	5.8	177	0	16 W	1323	-0.2	-6	0	16 W	1910	6.5	198	0										
	1059	0.0	0	0		1042	0.8	24	0		0609	5.0	152	0		0548	4.6	140	0		0731	5.3	162	0		0659	5.8	177	0		0745	6.2	189	0		1323	-0.2	-6	0		1910	6.5	198	0										
	1659	6.2	189	0		1648	5.3	162	0		1230	0.2	6	0		1155	0.6	18	0		1351	0.4	12	0		1323	-0.2	-6	0		1416	-0.5	-15	0		1910	6.5	198	0		1910	6.5	198	0										
	2346	0.0	0	0		2347	0.8	24	0		1835	6.1	186	0		1755	5.8	177	0		1947	5.9	180	0		1910	6.5	198	0		1956	6.5	198	0		1956	6.5	198	0		1956	6.5	198	0										
2 Th	0522	5.1	155	0	17 F	0528	4.4	134	0	2 Su	0117	-0.1	-3	0	17 M	0056	0.2	6	0	2 W	0223	0.0	0	0	17 Th	0201	-0.6	-18	0	17 Th	0745	6.2	189	0	17 Th	1416	-0.5	-15	0	17 Th	1956	6.5	198	0	17 Th	1956	6.5	198	0					
	1152	-0.1	-3	0		1131	0.7	21	0		0702	5.1	155	0		0639	5.0	152	0		0812	5.4	165	0		0745	6.2	189	0		1416	-0.5	-15	0		0745	6.2	189	0		1416	-0.5	-15	0		1956	6.5	198	0					
	1756	6.3	192	0		1739	5.6	171	0		1322	0.2	6	0		1249	0.3	9	0		1435	0.4	12	0		1416	-0.5	-15	0		1507	-0.6	-18	0		1507	-0.6	-18	0		1956	6.5	198	0		1956	6.5	198	0					
											1923	6.1	186	0		1844	6.1	186	0		2026	5.8	177	0		1956	6.5	198	0		2044	6.5	198	0		2044	6.5	198	0		2044	6.5	198	0										
3 F	0041	-0.2	-6	0	18 Sa	0036	0.5	15	0	3 M	0206	-0.2	-6	0	18 Tu	0145	-0.2	-6	0	3 Th	0301	0.0	0	0	18 F	0248	-0.8	-24	0	18 F	0830	6.4	195	0	18 F	1507	-0.6	-18	0	18 F	2044	6.5	198	0	18 F	2044	6.5	198	0	18 F	2044	6.5	198	0
	0622	5.2	158	0		0620	4.6	140	0		0750	5.2	158	0		0725	5.3	162	0		0850	5.4	165	0		0830	6.4	195	0		0830	6.4	195	0		1507	-0.6	-18	0		1507	-0.6	-18	0		2044	6.5	198	0		2044	6.5	198	0
	1246	-0.1	-3	0		1221	0.6	18	0		1412	0.3	9	0		1343	0.0	0	0		1515	0.4	12	0		1507	-0.6	-18	0		1507	-0.6	-18	0		1507	-0.6	-18	0		1507	-0.6	-18	0		1507	-0.6	-18	0					
	1849	6.4	195	0		1824	5.8	177	0		2008	6.1	186	0		1930	6.4	195	0		2103	5.6	171	0		2044	6.5	198	0		2044	6.5	198	0		2044	6.5	198	0		2044	6.5	198	0		2044	6.5	198	0					

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Bayonne Bridge, Staten Island, New York, 2020

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>
1 Th ○	0149 0.1 3 0744 5.6 171 1410 0.4 12 2000 5.6 171	16 F ●	0131 -0.7 -21 0721 6.6 201 1357 -0.7 -21 1937 6.3 192	1 Su	0224 0.2 6 0816 5.7 174 1504 0.2 6 2041 5.0 152	16 M	0243 -0.9 -27 0834 6.8 207 1525 -1.0 -30 2100 5.6 171	1 Tu	0231 0.2 6 0815 5.6 171 1522 0.0 0 2052 4.5 137	16 W	0314 -0.7 -21 0908 6.3 192 1558 -1.0 -30 2139 5.0 152
2 F	0225 0.1 3 0818 5.6 171 1450 0.4 12 2034 5.4 165	17 Sa	0219 -0.9 -27 0807 6.8 207 1450 -0.8 -24 2025 6.2 189	2 M	0258 0.3 9 0840 5.6 171 1541 0.3 9 2111 4.7 143	17 Tu	0332 -0.7 -21 0925 6.6 201 1615 -0.8 -24 2155 5.3 162	2 W	0308 0.2 6 0842 5.5 168 1601 0.0 0 2125 4.4 134	17 Th	0402 -0.5 -15 1000 5.9 180 1645 -0.7 -21 2235 4.8 146
3 Sa	0259 0.2 6 0849 5.6 171 1527 0.4 12 2107 5.2 158	18 Su	0306 -0.9 -27 0855 6.8 207 1632 -0.8 -24 2116 6.0 183	3 Tu	0330 0.4 12 0904 5.5 168 1617 0.4 12 2142 4.5 137	18 W	0420 -0.4 -12 1020 6.2 189 1705 -0.5 -15 2256 5.0 152	3 Th	0345 0.3 9 0915 5.5 168 1638 0.1 3 2204 4.3 131	18 F	0448 -0.1 -3 1055 5.5 168 1731 -0.4 -12 2334 4.6 140
4 Su	0330 0.3 9 0915 5.5 168 1602 0.5 15 2138 5.0 152	19 M	0353 -0.7 -21 0946 6.7 204 1632 -0.6 -18 2212 5.6 171	4 W	0401 0.6 18 0934 5.4 165 1652 0.6 18 2219 4.3 131	19 Th	0509 0.0 0 1121 5.8 177 1757 -0.1 -3 2359 4.8 146	4 F	0421 0.4 12 0956 5.4 165 1717 0.2 6 2253 4.2 128	19 Sa	0536 0.2 6 1151 5.2 158 1818 -0.1 -3
5 M	0359 0.5 15 0939 5.4 165 1636 0.7 21 2210 4.7 143	20 Tu	0440 -0.4 -12 1043 6.4 195 1724 -0.3 -9 2314 5.3 162	5 Th	0433 0.7 21 1013 5.3 162 1730 0.7 21 2309 4.2 128	20 F	0602 0.4 12 1221 5.4 165 1854 0.2 6	5 Sa	0501 0.5 15 1046 5.2 158 1800 0.3 9 2351 4.2 128	20 Su	0029 4.5 137 0628 0.6 18 1244 4.8 146 1909 0.2 6
6 Tu	0426 0.7 21 1007 5.3 162 1709 0.9 27 2248 4.5 137	21 W	0530 0.1 3 1144 6.0 183 1820 0.1 3	6 F	0510 0.9 27 1103 5.2 158 1816 0.9 27	21 Sa ○	0059 4.6 140 0704 0.8 24 1318 5.1 155 1956 0.4 12	6 Su	0548 0.6 18 1144 5.1 155 1852 0.3 9	21 M ○	0121 4.4 134 0729 0.9 27 1334 4.6 140 2004 0.5 15
7 W	0455 0.9 27 1045 5.2 158 1746 1.1 34 2336 4.3 131	22 Th	0019 5.0 152 0626 0.5 15 1246 5.7 174 1924 0.4 12	7 Sa	0008 4.2 128 0557 1.0 30 1203 5.2 158 1921 0.9 27	22 Su	0155 4.5 137 0814 1.0 30 1412 4.9 149 2056 0.5 15	7 M ○	0050 4.4 134 0650 0.8 24 1246 5.1 155 1957 0.3 9	22 Tu	0210 4.4 134 0837 1.0 30 1424 4.3 131 2059 0.5 15
8 Th	0530 1.1 34 1134 5.2 158 1836 1.3 40	23 F ○	0120 4.8 146 0734 0.9 27 1345 5.4 165 2032 0.6 18	8 Su	0110 4.3 131 0704 1.1 34 1306 5.2 158 2035 0.8 24	23 M	0249 4.6 140 0920 1.0 30 1506 4.7 143 2149 0.5 15	8 Tu	0148 4.6 140 0813 0.7 21 1349 5.0 152 2103 0.1 3	23 W	0259 4.4 134 0938 1.0 30 1515 4.2 128 2148 0.5 15
9 F ○	0032 4.2 128 0616 1.2 37 1231 5.1 155 1955 1.3 40	24 Sa	0220 4.7 143 0847 1.0 30 1443 5.2 158 2134 0.6 18	9 M	0211 4.5 137 0835 1.0 30 1412 5.2 158 2138 0.5 15	24 Tu	0342 4.6 140 1017 0.9 27 1600 4.6 140 2235 0.4 12	9 W	0246 4.9 149 0930 0.5 15 1453 5.0 152 2201 -0.1 -3	24 Th	0350 4.5 137 1031 0.8 24 1610 4.1 125 2233 0.4 12
10 Sa	0132 4.2 128 0726 1.3 40 1333 5.2 158 2113 1.1 34	25 Su	0318 4.7 143 0951 1.0 30 1541 5.1 155 2227 0.5 15	10 Tu	0313 4.8 146 0950 0.7 21 1519 5.3 162 2233 0.1 3	25 W	0435 4.8 146 1106 0.7 21 1653 4.6 140 2316 0.3 9	10 Th	0347 5.3 162 1034 0.1 3 1601 5.0 152 2254 -0.4 -12	25 F	0441 4.7 143 1120 0.6 18 1705 4.1 125 2316 0.3 9
11 Su	0235 4.4 134 0900 1.2 37 1438 5.3 162 2213 0.8 24	26 M	0416 4.8 146 1046 0.8 24 1638 5.1 155 2313 0.4 12	11 W	0416 5.2 158 1052 0.2 6 1627 5.5 168 2323 -0.3 -9	26 Th	0524 5.0 152 1151 0.5 15 1743 4.7 143 2356 0.2 6	11 F	0449 5.7 174 1133 -0.3 -9 1707 5.1 155 2347 -0.6 -18	26 Sa	0530 4.9 149 1206 0.3 9 1756 4.2 128 2358 0.2 6
12 M	0341 4.6 140 1012 0.9 27 1548 5.5 168 2305 0.3 9	27 Tu	0511 5.0 152 1134 0.7 21 1730 5.1 155 2355 0.3 9	12 Th	0515 5.8 177 1149 -0.2 -6 1730 5.7 174	27 F	0607 5.2 158 1235 0.3 9 1827 4.7 143	12 Sa	0547 6.1 186 1229 -0.6 -18 1808 5.2 158	27 Su	0613 5.1 155 1252 0.1 3 1842 4.3 131
13 Tu	0446 5.1 155 1112 0.4 12 1656 5.8 177 2354 -0.1 -3	28 W	0558 5.3 162 1219 0.5 15 1815 5.2 158	13 F	0012 -0.6 -18 0609 6.3 192 1245 -0.6 -18 1826 5.8 177	28 Sa	0034 0.2 6 0645 5.4 165 1318 0.1 3 1908 4.8 146	13 Su	0039 -0.8 -24 0640 6.4 195 1324 -0.9 -27 1903 5.3 162	28 M	0042 0.1 3 0652 5.3 162 1337 -0.1 -3 1923 4.4 134
14 W	0543 5.6 171 1208 0.0 0 1755 6.1 186	29 Th	0034 0.2 6 0639 5.5 168 1303 0.4 12 1856 5.3 162	14 Sa	0102 -0.8 -24 0658 6.6 201 1340 -0.9 -27 1918 5.9 180	29 Su	0114 0.1 3 0719 5.5 168 1401 0.0 0 1945 4.7 143	14 M ●	0132 -0.9 -27 0730 6.5 198 1418 -1.0 -30 1954 5.3 162	29 Tu ○	0126 0.0 0 0726 5.4 165 1421 -0.3 -9 2000 4.5 137
15 Th	0042 -0.5 -15 0633 6.1 186 1303 -0.4 -12 1848 6.3 192	30 F	0112 0.1 3 0715 5.6 171 1345 0.3 9 1934 5.2 158	15 Su ●	0153 -0.9 -27 0746 6.8 207 1433 -1.0 -30 2008 5.8 177	30 M ○	0153 0.1 3 0749 5.6 171 1443 0.0 0 2019 4.6 140	15 Tu	0224 -0.8 -24 0819 6.5 198 1509 -1.1 -34 2045 5.2 158	30 W	0209 -0.1 -3 0757 5.5 168 1503 -0.4 -12 2035 4.5 137
		31 Sa ○	0149 0.2 6 0748 5.7 174 1425 0.2 6 2008 5.1 155							31 Th	0251 -0.1 -3 0829 5.5 168 1543 -0.4 -12 2112 4.4 134

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Albany, New York, 2020

Times and Heights of High and Low Waters

October				November				December																																																																																			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height																																																																																
<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>																																																																																
1 Th 0339 5.3 162 1039 -0.3 -9 1608 5.2 158 2257 0.0 0	16 F 1030 -0.4 -12 1540 5.7 174 2255 -0.3 -9	1 Su 0434 4.9 149 1112 0.2 6 1645 5.5 168 2359 0.3 9	16 M 0432 5.2 158 1136 -0.2 -6 1649 6.0 183	1 Tu 0450 4.5 137 1114 0.4 12 1631 5.5 168	16 W 0005 -0.3 -9 0509 4.8 146 1204 -0.1 -3 1722 5.6 171	2 F 0419 5.2 158 1115 -0.2 -6 1646 5.2 158 2339 0.1 3	17 Sa 0359 5.5 168 1116 -0.4 -12 1625 5.8 177 2347 -0.3 -9	2 M 0512 4.7 143 1142 0.3 9 1706 5.5 168	17 Tu 0023 -0.2 -6 0526 5.0 152 1225 -0.1 -3 1740 5.8 177	2 W 0021 0.2 6 0528 4.4 134 1150 0.4 12 1651 5.6 171	17 Th 0055 -0.2 -6 0604 4.7 143 1253 0.0 0 1815 5.4 165	3 Sa 0458 5.0 152 1148 0.0 0 1720 5.2 158	18 Su 0449 5.4 165 1202 -0.4 -12 1712 5.9 180	3 Tu 0041 0.4 12 0550 4.5 137 1210 0.4 12 1718 5.6 171	18 W 0115 -0.1 -3 0623 4.9 149 1314 0.1 3 1836 5.6 171	3 Th 0104 0.2 6 0607 4.3 131 1229 0.4 12 1726 5.6 171	18 F 0144 -0.1 -3 0700 4.6 140 1343 0.2 6 1912 5.2 158	4 Su 0020 0.3 9 0536 4.8 146 1217 0.1 3 1749 5.2 158	19 M 0039 -0.3 -9 0543 5.2 158 1248 -0.2 -6 1802 5.8 177	4 W 0124 0.5 15 0627 4.4 134 1241 0.5 15 1748 5.6 171	19 Th 0208 0.0 0 0722 4.7 143 1406 0.3 9 1935 5.4 165	4 F 0148 0.3 9 0648 4.3 131 1313 0.5 15 1810 5.6 171	19 Sa 0233 0.0 0 0757 4.6 140 1435 0.4 12 2009 5.1 155	5 M 0101 0.4 12 0613 4.6 140 1242 0.2 6 1804 5.2 158	20 Tu 0133 -0.2 -6 0640 5.0 152 1337 -0.1 -3 1858 5.7 174	5 Th 0209 0.6 18 0706 4.3 131 1319 0.6 18 1830 5.7 174	20 F 0301 0.1 3 0823 4.7 143 1501 0.4 12 2036 5.3 162	5 Sa 0234 0.3 9 0735 4.4 134 1403 0.5 15 1901 5.5 168	20 Su 0322 0.1 3 0853 4.6 140 1528 0.5 15 2105 4.9 149	6 Tu 0144 0.5 15 0651 4.4 134 1306 0.3 9 1822 5.3 162	21 W 0228 0.0 0 0741 4.8 146 1429 0.1 3 1958 5.5 168	6 F 0257 0.6 18 0754 4.3 131 1406 0.6 18 1918 5.6 171	21 Sa 0355 0.2 6 0922 4.7 143 1557 0.6 18 2136 5.1 155	6 Su 0323 0.3 9 0829 4.5 137 1500 0.6 18 1958 5.4 165	21 M 0411 0.2 6 0947 4.6 140 1623 0.7 21 2200 4.8 146	7 W 0230 0.6 18 0730 4.2 128 1338 0.4 12 1859 5.4 165	22 Th 0324 0.1 3 0843 4.7 143 1525 0.3 9 2100 5.4 165	7 Sa 0349 0.7 21 0852 4.3 131 1503 0.8 24 2013 5.5 168	22 Su 0448 0.3 9 1019 4.7 143 1655 0.6 18 2234 5.0 152	7 M 0414 0.3 9 0926 4.6 140 1606 0.6 18 2104 5.2 158	22 Tu 0459 0.3 9 1041 4.7 143 1720 0.7 21 2255 4.7 143	8 Th 0320 0.7 21 0818 4.1 125 1421 0.5 15 1944 5.3 162	23 F 0422 0.2 6 0944 4.7 143 1623 0.4 12 2202 5.2 158	8 Su 0444 0.7 21 0955 4.4 134 1615 0.8 24 2116 5.3 162	23 M 0540 0.3 9 1115 4.8 146 1754 0.7 21 2331 5.0 152	8 Tu 0507 0.2 6 1025 4.8 146 1716 0.6 18 2222 5.1 155	23 W 0546 0.3 9 1133 4.8 146 1817 0.7 21 2350 4.6 140	9 F 0417 0.8 24 0921 4.0 122 1515 0.7 21 2037 5.2 158	24 Sa 0519 0.2 6 1045 4.7 143 1723 0.5 15 2304 5.2 158	9 M 0541 0.6 18 1057 4.5 137 1732 0.8 24 2236 5.2 158	24 Tu 0631 0.2 6 1210 5.0 152 1850 0.6 18	9 W 0602 0.1 3 1124 5.0 152 1824 0.5 15 2336 5.0 152	24 Th 0633 0.3 9 1224 4.9 149 1913 0.6 18	10 Sa 0516 0.8 24 1028 4.0 122 1625 0.8 24 2138 5.1 155	25 Su 0615 0.2 6 1143 4.8 146 1822 0.5 15	10 Tu 0637 0.4 12 1156 4.8 146 1843 0.7 21 2358 5.2 158	25 W 0025 5.0 152 0719 0.2 6 1301 5.1 155 1944 0.5 15	10 Th 0657 0.0 0 1221 5.2 158 1929 0.3 9	25 F 0043 4.5 137 0719 0.3 9 1312 5.0 152 2007 0.4 12	11 Su 0615 0.7 21 1132 4.1 125 1749 0.8 24 2300 5.0 152	26 M 0002 5.2 158 0708 0.1 3 1240 5.0 152 1919 0.4 12	11 W 0730 0.2 6 1251 5.1 155 1947 0.4 12	26 Th 0116 5.0 152 0803 0.1 3 1348 5.3 162 2036 0.4 12	11 F 0041 5.0 152 0751 -0.1 -3 1315 5.5 168 2029 0.0 0	26 Sa 0134 4.5 137 0803 0.3 9 1356 5.2 158 2058 0.2 6	12 M 0712 0.5 15 1230 4.4 134 1903 0.7 21	27 Tu 0057 5.2 158 0757 0.0 0 1331 5.2 158 2013 0.3 9	12 Th 0103 5.2 158 0822 0.0 0 1342 5.4 165 2047 0.2 6	27 F 0203 5.0 152 0846 0.1 3 1430 5.4 165 2124 0.2 6	12 Sa 0139 5.1 155 0843 -0.2 -6 1406 5.7 174 2127 -0.2 -6	27 Su 0221 4.5 137 0847 0.3 9 1436 5.3 162 2146 0.1 3	13 Tu 0025 5.1 155 0805 0.2 6 1323 4.7 143 2007 0.4 12	28 W 0146 5.3 162 0843 -0.1 -3 1418 5.3 162 2103 0.2 6	13 F 0159 5.3 162 0912 -0.2 -6 1429 5.7 174 2144 -0.1 -3	28 Sa 0248 4.9 149 0925 0.2 6 1509 5.5 168 2211 0.1 3	13 Su 0233 5.1 155 0935 -0.3 -9 1454 5.9 180 2221 -0.3 -9	28 M 0305 4.4 134 0929 0.3 9 1512 5.3 162 2232 0.0 0	14 W 0127 5.3 162 0856 0.0 0 1411 5.1 155 2106 0.1 3	29 Th 0232 5.3 162 0925 -0.1 -3 1501 5.5 168 2150 0.2 6	14 Sa 0251 5.4 165 1001 -0.2 -6 1515 5.9 180 2238 -0.2 -6	29 Su 0330 4.8 146 1003 0.2 6 1543 5.5 168 2255 0.1 3	14 M 0325 5.0 152 1025 -0.3 -9 1542 5.9 180 2314 -0.4 -12	29 Tu 0347 4.4 134 1011 0.3 9 1543 5.4 165 2316 -0.1 -3	15 Th 0220 5.4 165 0944 -0.2 -6 1456 5.4 165 2201 -0.1 -3	30 F 0314 5.2 158 1003 0.0 0 1539 5.5 168 2234 0.2 6	15 Su 0341 5.3 162 1049 -0.3 -9 1601 6.0 183 2331 -0.3 -9	30 M 0411 4.6 140 1039 0.3 9 1612 5.5 168 2339 0.1 3	15 Tu 0416 4.9 149 1115 -0.2 -6 1631 5.8 177	30 W 0428 4.3 131 1054 0.2 6 1608 5.4 165 2359 -0.1 -3	31 Sa 0355 5.1 155 1039 0.1 3 1615 5.5 168 2317 0.2 6	31 M 0507 4.3 131 1136 0.2 6 1635 5.5 168
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9 F 0417 0.8 24 0921 4.0 122 1515 0.7 21 2037 5.2 158	24 Sa 0519 0.2 6 1045 4.7 143 1723 0.5 15 2304 5.2 158	9 M 0541 0.6 18 1057 4.5 137 1732 0.8 24 2236 5.2 158	24 Tu 0631 0.2 6 1210 5.0 152 1850 0.6 18	9 W 0602 0.1 3 1124 5.0 152 1824 0.5 15 2336 5.0 152	24 Th 0633 0.3 9 1224 4.9 149 1913 0.6 18	10 Sa 0516 0.8 24 1028 4.0 122 1625 0.8 24 2138 5.1 155	25 Su 0615 0.2 6 1143 4.8 146 1822 0.5 15	10 Tu 0637 0.4 12 1156 4.8 146 1843 0.7 21 2358 5.2 158	25 W 0025 5.0 152 0719 0.2 6 1301 5.1 155 1944 0.5 15	10 Th 0657 0.0 0 1221 5.2 158 1929 0.3 9	25 F 0043 4.5 137 0719 0.3 9 1312 5.0 152 2007 0.4 12	11 Su 0615 0.7 21 1132 4.1 125 1749 0.8 24 2300 5.0 152	26 M 0002 5.2 158 0708 0.1 3 1240 5.0 152 1919 0.4 12	11 W 0730 0.2 6 1251 5.1 155 1947 0.4 12	26 Th 0116 5.0 152 0803 0.1 3 1348 5.3 162 2036 0.4 12	11 F 0041 5.0 152 0751 -0.1 -3 1315 5.5 168 2029 0.0 0	26 Sa 0134 4.5 137 0803 0.3 9 1356 5.2 158 2058 0.2 6	12 M 0712 0.5 15 1230 4.4 134 1903 0.7 21	27 Tu 0057 5.2 158 0757 0.0 0 1331 5.2 158 2013 0.3 9	12 Th 0103 5.2 158 0822 0.0 0 1342 5.4 165 2047 0.2 6	27 F 0203 5.0 152 0846 0.1 3 1430 5.4 165 2124 0.2 6	12 Sa 0139 5.1 155 0843 -0.2 -6 1406 5.7 174 2127 -0.2 -6	27 Su 0221 4.5 137 0847 0.3 9 1436 5.3 162 2146 0.1 3	13 Tu 0025 5.1 155 0805 0.2 6 1323 4.7 143 2007 0.4 12	28 W 0146 5.3 162 0843 -0.1 -3 1418 5.3 162 2103 0.2 6	13 F 0159 5.3 162 0912 -0.2 -6 1429 5.7 174 2144 -0.1 -3	28 Sa 0248 4.9 149 0925 0.2 6 1509 5.5 168 2211 0.1 3	13 Su 0233 5.1 155 0935 -0.3 -9 1454 5.9 180 2221 -0.3 -9	28 M 0305 4.4 134 0929 0.3 9 1512 5.3 162 2232 0.0 0	14 W 0127 5.3 162 0856 0.0 0 1411 5.1 155 2106 0.1 3	29 Th 0232 5.3 162 0925 -0.1 -3 1501 5.5 168 2150 0.2 6	14 Sa 0251 5.4 165 1001 -0.2 -6 1515 5.9 180 2238 -0.2 -6	29 Su 0330 4.8 146 1003 0.2 6 1543 5.5 168 2255 0.1 3	14 M 0325 5.0 152 1025 -0.3 -9 1542 5.9 180 2314 -0.4 -12	29 Tu 0347 4.4 134 1011 0.3 9 1543 5.4 165 2316 -0.1 -3	15 Th 0220 5.4 165 0944 -0.2 -6 1456 5.4 165 2201 -0.1 -3	30 F 0314 5.2 158 1003 0.0 0 1539 5.5 168 2234 0.2 6	15 Su 0341 5.3 162 1049 -0.3 -9 1601 6.0 183 2331 -0.3 -9	30 M 0411 4.6 140 1039 0.3 9 1612 5.5 168 2339 0.1 3	15 Tu 0416 4.9 149 1115 -0.2 -6 1631 5.8 177	30 W 0428 4.3 131 1054 0.2 6 1608 5.4 165 2359 -0.1 -3	31 Sa 0355 5.1 155 1039 0.1 3 1615 5.5 168 2317 0.2 6	31 M 0507 4.3 131 1136 0.2 6 1635 5.5 168																																																
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13 Tu 0025 5.1 155 0805 0.2 6 1323 4.7 143 2007 0.4 12	28 W 0146 5.3 162 0843 -0.1 -3 1418 5.3 162 2103 0.2 6	13 F 0159 5.3 162 0912 -0.2 -6 1429 5.7 174 2144 -0.1 -3	28 Sa 0248 4.9 149 0925 0.2 6 1509 5.5 168 2211 0.1 3	13 Su 0233 5.1 155 0935 -0.3 -9 1454 5.9 180 2221 -0.3 -9	28 M 0305 4.4 134 0929 0.3 9 1512 5.3 162 2232 0.0 0	14 W 0127 5.3 162 0856 0.0 0 1411 5.1 155 2106 0.1 3	29 Th 0232 5.3 162 0925 -0.1 -3 1501 5.5 168 2150 0.2 6	14 Sa 0251 5.4 165 1001 -0.2 -6 1515 5.9 180 2238 -0.2 -6	29 Su 0330 4.8 146 1003 0.2 6 1543 5.5 168 2255 0.1 3	14 M 0325 5.0 152 1025 -0.3 -9 1542 5.9 180 2314 -0.4 -12	29 Tu 0347 4.4 134 1011 0.3 9 1543 5.4 165 2316 -0.1 -3	15 Th 0220 5.4 165 0944 -0.2 -6 1456 5.4 165 2201 -0.1 -3	30 F 0314 5.2 158 1003 0.0 0 1539 5.5 168 2234 0.2 6	15 Su 0341 5.3 162 1049 -0.3 -9 1601 6.0 183 2331 -0.3 -9	30 M 0411 4.6 140 1039 0.3 9 1612 5.5 168 2339 0.1 3	15 Tu 0416 4.9 149 1115 -0.2 -6 1631 5.8 177	30 W 0428 4.3 131 1054 0.2 6 1608 5.4 165 2359 -0.1 -3	31 Sa 0355 5.1 155 1039 0.1 3 1615 5.5 168 2317 0.2 6	31 M 0507 4.3 131 1136 0.2 6 1635 5.5 168																																																																								
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Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean low water during lowest river stages which is the chart datum of soundings.

Sandy Hook, New Jersey, 2020

Times and Heights of High and Low Waters

July				August				September			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>
1 W	0353 4.7 143 1020 -0.1 -3 1633 5.8 177 2308 0.0 0	16 Th	0401 4.0 122 1009 0.8 24 1623 4.9 149 2309 0.7 21	1 Sa	0541 4.6 140 1150 0.2 6 1806 5.8 177	16 Su	0518 4.4 134 1119 0.5 15 1731 5.5 168	1 Tu	0100 0.1 3 0702 5.0 152 1311 0.3 9 1917 5.6 171	16 W	0032 -0.2 -6 0630 5.5 168 1242 -0.2 -6 1844 6.1 186
2 Th	0456 4.7 143 1113 -0.1 -3 1729 6.0 183	17 F	0457 4.1 125 1056 0.7 21 1713 5.2 158 2356 0.5 15	2 Su	0038 0.0 0 0634 4.8 146 1241 0.2 6 1854 5.8 177	17 M	0015 0.3 9 0609 4.7 143 1211 0.3 9 1820 5.8 177	2 W	0141 0.0 0 0742 5.1 155 1354 0.3 9 1956 5.5 168	17 Th	0119 -0.5 -15 0717 5.8 177 1334 -0.5 -15 ● 1932 6.2 189
3 F	0002 -0.2 -6 0555 4.8 146 1205 -0.1 -3 1821 6.1 186	18 Sa	0548 4.3 131 1145 0.5 15 1759 5.4 165	3 M	0126 -0.1 -3 0722 4.9 149 1330 0.2 6 1938 5.8 177	18 Tu	0103 0.0 0 0656 5.0 152 1302 0.0 0 ● 1907 6.0 183	3 Th	0219 0.0 0 0821 5.1 155 1435 0.4 12 2034 5.4 165	18 F	0205 -0.7 -21 0804 6.1 186 1426 -0.6 -18 2020 6.1 186
4 Sa	0055 -0.3 -9 0648 4.9 149 1257 0.0 0 1910 6.1 186	19 Su	0044 0.3 9 0635 4.5 137 1234 0.4 12 1843 5.7 174	4 Tu	0210 -0.1 -3 0807 4.9 149 1416 0.3 9 2021 5.7 174	19 W	0149 -0.3 -9 0741 5.3 162 1353 -0.2 -6 1953 6.1 186	4 F	0255 0.1 3 0859 5.1 155 1514 0.5 15 2113 5.1 155	19 Sa	0250 -0.7 -21 0853 6.2 189 1516 -0.6 -18 2111 5.8 177
5 Su	0146 -0.3 -9 0739 4.9 149 1348 0.0 0 1957 6.0 183	20 M	0131 0.0 0 0720 4.7 143 1323 0.2 6 ● 1927 5.8 177	5 W	0251 -0.1 -3 0851 4.9 149 1459 0.4 12 2104 5.5 168	20 Th	0234 -0.5 -15 0828 5.5 168 1443 -0.3 -9 2040 6.1 186	5 Sa	0328 0.3 9 0937 5.0 152 1551 0.6 18 2152 4.8 146	20 Su	0335 -0.6 -18 0945 6.2 189 1607 -0.4 -12 2205 5.5 168
6 M	0234 -0.3 -9 0828 4.8 146 1436 0.2 6 2044 5.8 177	21 Tu	0216 -0.1 -3 0805 4.8 146 1411 0.1 3 2011 5.9 180	6 Th	0329 0.0 0 0935 4.8 146 1540 0.5 15 2146 5.2 158	21 F	0318 -0.6 -18 0918 5.7 174 1532 -0.3 -9 2131 5.9 180	6 Su	0359 0.5 15 1014 4.9 149 1628 0.8 24 2233 4.6 140	21 M	0422 -0.3 -9 1040 6.0 183 1701 -0.1 -3 2304 5.1 155
7 Tu	0318 -0.2 -6 0917 4.7 143 1522 0.3 9 2131 5.5 168	22 W	0300 -0.3 -9 0851 4.9 149 1459 0.0 0 2058 5.9 180	7 F	0405 0.2 6 1018 4.7 143 1619 0.7 21 2229 4.9 149	22 Sa	0402 -0.5 -15 1010 5.7 174 1623 -0.2 -6 2224 5.6 171	7 M	0430 0.7 21 1051 4.8 146 1707 1.1 34 2317 4.3 131	22 Tu	0511 0.1 3 1137 5.8 177 1801 0.3 9
8 W	0400 -0.1 -3 1007 4.6 140 1606 0.6 18 2219 5.3 162	23 Th	0343 -0.3 -9 0941 5.0 152 1547 0.0 0 2149 5.8 177	8 Sa	0440 0.4 12 1102 4.7 143 1700 1.0 30 2313 4.7 143	23 Su	0447 -0.3 -9 1105 5.7 174 1717 0.1 3 2321 5.3 162	8 Tu	0501 0.9 27 1130 4.7 143 1752 1.3 40	23 W	0004 4.8 146 0609 0.5 15 1235 5.6 171 ● 1908 0.5 15
9 Th	0441 0.2 6 1057 4.6 140 1649 0.8 24 2306 5.0 152	24 F	0427 -0.3 -9 1035 5.2 158 1637 0.1 3 2243 5.6 171	9 Su	0514 0.6 18 1143 4.6 140 1744 1.2 37 2357 4.4 134	24 M	0536 0.0 0 1200 5.7 174 1819 0.4 12	9 W	0003 4.1 125 0538 1.1 34 1213 4.7 143 1852 1.4 43	24 Th	0105 4.5 137 0718 0.8 24 1334 5.3 162 2019 0.7 21
10 F	0521 0.4 12 1144 4.5 137 1736 1.1 34 2352 4.7 143	25 Sa	0512 -0.2 -6 1129 5.3 162 1732 0.3 9 2338 5.3 162	10 M	0551 0.8 24 1224 4.6 140 1838 1.4 43	25 Tu	0019 5.0 152 0633 0.3 9 1256 5.6 171 ● 1928 0.6 18	10 Th	0052 3.9 119 0631 1.3 40 1301 4.7 143 ● 2005 1.4 43	25 F	0206 4.4 134 0830 0.9 27 1434 5.2 158 2123 0.6 18
11 Sa	0603 0.6 18 1229 4.5 137 1829 1.3 40	26 Su	0603 -0.1 -3 1223 5.4 165 1835 0.5 15	11 Tu	0042 4.2 128 0634 1.0 30 1306 4.6 140 ● 1943 1.4 43	26 W	0118 4.7 143 0739 0.5 15 1354 5.5 168 2038 0.6 18	11 F	0146 3.9 119 0747 1.3 40 1356 4.7 143 2110 1.2 37	26 Sa	0310 4.4 134 0934 0.9 27 1536 5.1 155 2218 0.5 15
12 Su	0037 4.5 137 0648 0.8 24 1313 4.5 137 ● 1930 1.4 43	27 M	0034 5.1 155 0700 0.1 3 1318 5.4 165 ● 1945 0.6 18	12 W	0129 4.0 122 0731 1.1 34 1351 4.6 140 2048 1.3 40	27 Th	0220 4.5 137 0847 0.6 18 1454 5.4 165 2142 0.5 15	12 Sa	0247 4.0 122 0900 1.2 37 1459 4.9 149 2206 0.9 27	27 Su	0412 4.5 137 1029 0.7 21 1634 5.1 155 2305 0.4 12
13 M	0123 4.3 131 0738 0.9 27 1357 4.5 137 2032 1.3 40	28 Tu	0132 4.8 146 0803 0.2 6 1414 5.5 168 2054 0.5 15	13 Th	0222 3.9 119 0833 1.1 34 1441 4.7 143 2145 1.1 34	28 F	0324 4.4 134 0948 0.6 18 1556 5.4 165 2238 0.4 12	13 Su	0349 4.2 128 1001 0.9 27 1603 5.2 158 2257 0.5 15	28 M	0508 4.7 143 1119 0.6 18 1726 5.2 158 2349 0.2 6
14 Tu	0212 4.1 125 0830 0.9 27 1443 4.6 140 2128 1.2 37	29 W	0233 4.6 140 0904 0.3 9 1513 5.6 171 2156 0.4 12	14 F	0321 3.9 119 0932 1.0 30 1539 4.9 149 2237 0.9 27	29 Sa	0429 4.5 137 1044 0.5 15 1656 5.4 165 2329 0.3 9	14 M	0449 4.6 140 1056 0.5 15 1702 5.5 168 2345 0.1 3	29 Tu	0555 4.9 149 1205 0.5 15 1811 5.3 162
15 W	0304 4.0 122 0920 0.9 27 1532 4.8 146 2220 1.0 30	30 Th	0337 4.5 137 1002 0.3 9 1614 5.6 171 2253 0.2 6	15 Sa	0422 4.1 125 1027 0.8 24 1637 5.2 158 2327 0.6 18	30 Su	0527 4.7 143 1136 0.5 15 1749 5.5 168	15 Tu	0542 5.0 152 1150 0.1 3 1755 5.9 180	30 W	0029 0.1 3 0637 5.1 155 1248 0.4 12 1851 5.3 162
		31 F	0442 4.5 137 1057 0.2 6 1712 5.7 174 2347 0.1 3			31 M	0016 0.2 6 0617 4.9 149 1225 0.4 12 1835 5.6 171				

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Philadelphia, Pennsylvania, 2020

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm
1 Th 0045 6.9 210 0735 0.5 15 1311 6.7 204 1951 0.7 21		16 F 0024 7.3 223 0722 0.2 6 1251 7.3 223 1947 0.2 6		1 Su 0143 6.2 189 0819 0.6 18 1401 6.7 204 2053 0.6 18		16 M 0144 6.5 198 0834 -0.1 -3 1405 7.4 226 2116 -0.1 -3		1 Tu 0159 5.4 165 0828 0.2 6 1410 6.3 192 2113 0.2 6		16 W 0216 5.7 174 0901 -0.4 -12 1436 6.7 204 2147 -0.4 -12	
2 F 0127 6.8 207 0815 0.7 21 1351 6.7 204 2034 0.8 24		17 Sa 0114 7.3 223 0811 0.1 3 1339 7.5 229 2041 0.1 3		2 M 0224 6.0 183 0856 0.7 21 1437 6.6 201 2135 0.7 21		17 Tu 0235 6.3 192 0924 0.0 0 1456 7.2 219 2208 0.0 0		2 W 0239 5.3 162 0908 0.3 9 1446 6.3 192 2157 0.2 6		17 Th 0307 5.5 168 0951 -0.3 -9 1526 6.5 198 2236 -0.4 -12	
3 Sa 0208 6.6 201 0852 0.8 24 1429 6.7 204 2116 0.8 24		18 Su 0204 7.1 216 0859 0.1 3 1428 7.6 232 2134 0.2 6		3 Tu 0303 5.8 177 0933 0.7 21 1512 6.6 201 2218 0.7 21		18 W 0328 6.1 186 1014 0.0 0 1548 7.0 213 2259 0.0 0		3 Th 0320 5.2 158 0948 0.2 6 1523 6.3 192 2241 0.2 6		18 F 0359 5.4 165 1040 -0.2 -6 1618 6.2 189 2324 -0.3 -9	
4 Su 0249 6.4 195 0928 0.9 27 1507 6.7 204 2158 0.9 27		19 M 0256 6.8 207 0948 0.2 6 1519 7.5 229 2227 0.2 6		4 W 0343 5.7 174 1010 0.7 21 1546 6.6 201 2301 0.8 24		19 Th 0423 5.8 177 1104 0.2 6 1642 6.8 207 2351 0.1 3		4 F 0401 5.1 155 1031 0.2 6 1602 6.3 192 2326 0.2 6		19 Sa 0452 5.3 162 1130 -0.2 -6 1710 6.0 183	
5 M 0329 6.2 189 1003 0.9 27 1543 6.6 201 2240 1.0 30		20 Tu 0349 6.6 201 1038 0.3 9 1611 7.4 226 2321 0.4 12		5 Th 0425 5.5 168 1049 0.7 21 1623 6.5 198 2347 0.8 24		20 F 0519 5.7 174 1156 0.3 9 1738 6.5 198		5 Sa 0446 5.1 155 1118 0.2 6 1649 6.2 189		20 Su 0012 -0.3 -9 0545 5.2 158 1220 -0.1 -3 1804 5.8 177	
6 Tu 0410 6.0 183 1038 0.9 27 1620 6.6 201 2324 1.0 30		21 W 0445 6.3 192 1129 0.4 12 1707 7.2 219		6 F 0511 5.4 165 1134 0.7 21 1709 6.5 198		21 Sa 0043 0.2 6 0616 5.6 171 1250 0.3 9 1836 6.3 192		6 Su 0014 0.2 6 0536 5.1 155 1211 0.1 3 1745 6.2 189		21 M 0100 -0.2 -6 0639 5.2 158 1312 0.0 0 1858 5.6 171	
7 W 0454 5.9 180 1116 0.9 27 1700 6.6 201		22 Th 0015 0.5 15 0543 6.1 186 1222 0.5 15 1805 6.9 210		7 Sa 0037 0.8 24 0602 5.4 165 1227 0.7 21 1807 6.5 198		22 Su 0135 0.2 6 0713 5.6 171 1345 0.4 12 1933 6.1 186		7 M 0104 0.1 3 0631 5.3 162 1309 0.1 3 1846 6.1 186		22 Tu 0148 -0.2 -6 0733 5.3 162 1406 0.0 0 1953 5.5 168	
8 Th 0011 1.1 34 0541 5.7 174 1159 0.9 27 1746 6.6 201		23 F 0110 0.6 18 0642 6.0 183 1317 0.6 18 1905 6.7 204		8 Su 0130 0.7 21 0659 5.5 168 1326 0.7 21 1912 6.5 198		23 M 0227 0.2 6 0810 5.6 171 1441 0.4 12 2030 6.0 183		8 Tu 0157 0.0 0 0729 5.5 168 1411 0.1 3 1949 6.1 186		23 W 0236 -0.2 -6 0826 5.4 165 1501 0.0 0 2047 5.3 162	
9 F 0102 1.1 34 0634 5.6 171 1251 0.9 27 1843 6.6 201		24 Sa 0206 0.6 18 0742 5.9 180 1414 0.7 21 2005 6.6 201		9 M 0226 0.6 18 0758 5.6 171 1430 0.6 18 2015 6.5 198		24 Tu 0319 0.1 3 0904 5.8 177 1536 0.3 9 2124 6.0 183		9 W 0252 -0.1 -3 0828 5.7 174 1515 0.1 3 2050 6.0 183		24 Th 0325 -0.2 -6 0918 5.5 168 1556 -0.1 -3 2141 5.3 162	
10 Sa 0158 1.1 34 0731 5.6 171 1350 0.9 27 1945 6.7 204		25 Su 0301 0.6 18 0840 6.0 183 1511 0.7 21 2102 6.6 201		10 Tu 0322 0.5 15 0856 5.9 180 1535 0.5 15 2116 6.6 201		25 W 0408 0.1 3 0956 6.0 183 1631 0.2 6 2216 6.0 183		10 Th 0348 -0.2 -6 0925 6.1 186 1617 -0.1 -3 2149 6.0 183		25 F 0414 -0.2 -6 1009 5.6 171 1650 -0.1 -3 2232 5.2 158	
11 Su 0255 1.1 34 0829 5.7 174 1454 0.9 27 2046 6.8 207		26 M 0355 0.5 15 0936 6.1 186 1608 0.6 18 2157 6.6 201		11 W 0418 0.3 9 0952 6.3 192 1637 0.3 9 2214 6.7 204		26 Th 0456 0.0 0 1045 6.1 186 1723 0.2 6 2305 5.9 180		11 F 0443 -0.4 -12 1020 6.4 195 1718 -0.2 -6 2246 6.0 183		26 Sa 0502 -0.2 -6 1057 5.8 177 1742 -0.2 -6 2321 5.2 158	
12 M 0353 0.9 27 0926 6.0 183 1557 0.8 24 2145 7.0 213		27 Tu 0446 0.4 12 1028 6.3 192 1701 0.5 15 2247 6.6 201		12 Th 0512 0.1 3 1045 6.7 204 1737 0.2 6 2308 6.8 207		27 F 0542 0.0 0 1131 6.3 192 1813 0.1 3 2351 5.9 180		12 Sa 0537 -0.5 -15 1113 6.7 204 1816 -0.4 -12 2340 6.0 183		27 Su 0549 -0.3 -9 1142 5.9 180 1832 -0.3 -9	
13 Tu 0449 0.7 21 1020 6.3 192 1658 0.6 18 2240 7.2 219		28 W 0534 0.3 9 1117 6.5 198 1752 0.5 15 2335 6.6 201		13 F 0604 0.0 0 1137 7.0 213 1834 0.0 0		28 Sa 0625 0.1 3 1214 6.4 195 1900 0.1 3		13 Su 0629 -0.5 -15 1205 6.8 207 1912 -0.5 -15		28 M 0008 5.1 155 0635 -0.2 -6 1226 5.9 180 1920 -0.3 -9	
14 W 0542 0.5 15 1112 6.7 204 1757 0.4 12 2333 7.3 223		29 Th 0619 0.3 9 1201 6.6 201 1840 0.4 12		14 Sa 0001 6.7 204 0654 -0.1 -3 1227 7.3 223 1929 -0.1 -3		29 Su 0036 5.8 177 0707 0.1 3 1255 6.4 195 1945 0.1 3		14 M 0033 5.9 180 0721 -0.5 -15 1256 6.9 210 2005 -0.5 -15		29 Tu 0052 5.1 155 0719 -0.2 -6 1307 6.0 183 2006 -0.3 -9	
15 Th 0633 0.3 9 1202 7.0 213 1853 0.3 9		30 F 0019 6.5 198 0701 0.4 12 1243 6.7 204 1926 0.5 15		15 Su 0052 6.6 201 0744 -0.2 -6 1316 7.4 226 2023 -0.2 -6		30 M 0118 5.6 171 0748 0.2 6 1333 6.3 192 2030 0.1 3		15 Tu 0125 5.8 177 0812 -0.5 -15 1346 6.8 207 2057 -0.5 -15		30 W 0135 5.0 152 0803 -0.2 -6 1346 6.0 183 2050 -0.3 -9	
		31 Sa 0102 6.4 195 0741 0.5 15 1323 6.7 204 2010 0.5 15						31 Th 0216 4.9 149 0846 -0.3 -9 1425 6.0 183 2135 -0.3 -9			

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Baltimore, Maryland, 2020

Times and Heights of High and Low Waters

October				November				December					
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height		
h m	ft	h m	ft	h m	ft	h m	ft	h m	ft	h m	ft		
1 Th 0009 0608 1241 1830	0.5 1.6 0.5 1.6	15 49 15 49	16 F 0531 1201 1807	1.6 0.2 1.8	49 6 55	1 Su 0132 0636 1240 1922	0.5 1.2 0.2 1.6	15 37 6 49	16 M 0152 0641 1244 1934	0.2 1.1 -0.2 1.9	6 34 -6 58		
2 F 0054 0640 1305 1910	0.5 1.6 0.4 1.7	15 49 12 52	17 Sa 0051 0618 1239 1859	0.3 1.6 0.1 2.0	9 49 3 61	2 M 0217 0711 1308 1955	0.5 1.1 0.1 1.7	15 34 3 52	17 Tu 0251 0733 1331 2026	0.2 1.0 -0.2 1.9	6 30 -6 58		
3 Sa 0137 0711 1327 1948	0.6 1.5 0.4 1.7	18 46 12 52	18 Su 0153 0706 1319 1951	0.4 1.4 0.1 2.0	12 43 3 61	3 Tu 0302 0749 1339 2030	0.5 1.1 0.2 1.7	15 34 6 52	18 W 0348 0826 1421 2119	0.2 0.9 -0.1 1.8	6 27 -3 55		
4 Su 0221 0743 1352 2025	0.7 1.4 0.4 1.7	21 43 12 52	19 M 0256 0754 1401 2044	0.4 1.3 0.1 2.1	12 40 3 64	4 W 0348 0831 1414 2107	0.5 1.0 0.2 1.7	15 30 6 52	19 Th 0445 0922 1516 2214	0.2 0.9 0.0 1.7	6 27 0 52		
5 M 0308 0817 1419 2101	0.7 1.4 0.3 1.8	21 43 9 55	20 Tu 0359 0846 1447 2139	0.4 1.2 0.1 2.0	12 37 3 61	5 Th 0437 0916 1454 2149	0.5 1.0 0.2 1.7	15 30 6 52	20 F 0541 1021 1618 2311	0.2 0.9 0.0 1.5	6 27 0 46		
6 Tu 0358 0854 1450 2140	0.7 1.3 0.4 1.8	21 40 12 55	21 W 0504 0941 1538 2236	0.5 1.2 0.1 1.9	15 37 3 58	6 F 0526 1006 1541 2237	0.5 0.9 0.2 1.6	15 27 6 49	21 Sa 0635 1123 1726	0.2 0.9 0.1	6 27 3		
7 W 0453 0937 1527 2221	0.7 1.2 0.4 1.8	21 37 12 55	22 Th 0608 1041 1637 2337	0.5 1.1 0.2 1.8	15 34 6 55	7 Sa 0617 1101 1638 2330	0.4 0.9 0.3 1.6	12 27 9 49	22 Su 0009 0726 1227 1839	1.4 0.2 0.9 0.2	43 6 27 6		
8 Th 0552 1025 1609 2308	0.7 1.1 0.4 1.8	21 34 12 55	23 F 0709 1145 1746	0.5 1.1 0.3	15 34 9	8 Su 0706 1201 1747	0.4 1.0 0.3	12 30 9	23 M 0105 0812 1331 1951	1.3 0.2 1.0 0.2	40 6 30 6		
9 F 0651 1121 1701	0.7 1.1 0.4	21 34 12	24 Sa 0041 0806 1252 1901	1.7 0.5 1.1 0.4	52 15 34 12	9 M 0028 0753 1303 1904	1.6 0.3 1.1 0.3	49 9 34 9	24 Tu 0157 0853 1433 2058	1.2 0.2 1.1 0.3	37 6 34 9		
10 Sa 0001 0747 1223 1805	1.8 0.7 1.1 0.5	55 21 34 15	25 Su 0145 0858 1358 2014	1.6 0.5 1.2 0.4	49 15 37 12	10 Tu 0126 0838 1404 2021	1.5 0.3 1.2 0.3	46 9 37 9	25 W 0244 0929 1530 2200	1.1 0.1 1.1 0.3	34 3 34 9		
11 Su 0059 0839 1326 1917	1.8 0.6 1.2 0.5	55 18 37 15	26 M 0244 0943 1459 2120	1.6 0.4 1.2 0.4	49 12 37 12	11 W 0224 0919 1504 2135	1.5 0.2 1.3 0.3	46 6 40 9	26 Th 0327 1001 1622 2257	1.1 0.1 1.2 0.3	34 3 37 9		
12 M 0159 0924 1427 2031	1.8 0.5 1.2 0.4	55 15 37 12	27 Tu 0334 1022 1554 2219	1.5 0.4 1.3 0.4	46 12 40 12	12 Th 0318 0959 1602 2244	1.4 0.1 1.5 0.2	43 3 46 6	27 F 0407 1030 1706 2349	1.0 0.0 1.3 0.3	30 0 40 9		
13 Tu 0257 1006 1525 2141	1.7 0.5 1.4 0.4	52 15 43 12	28 W 0417 1055 1644 2311	1.4 0.4 1.4 0.4	43 12 43 12	13 F 0410 1039 1657 2349	1.3 0.0 1.7 0.2	40 0 52 6	28 Sa 0446 1059 1746	0.9 -0.1 1.4	27 -3 43		
14 W 0352 1045 1621 2247	1.7 0.4 1.5 0.4	52 12 46 12	29 Th 0454 1124 1729	1.4 0.3 1.5	43 9 46	14 Sa 0501 1119 1750	1.2 -0.1 1.8	37 -3 55	29 Su 0037 0525 1129 1822	0.3 0.9 -0.1 1.4	9 27 -3 43		
15 Th 0443 1123 1714 2350	1.7 0.3 1.7 0.3	52 9 52 9	30 F 0000 0528 1149 1810	0.4 1.3 0.2 1.5	12 40 6 46	15 Su 0052 0551 1201 1842	0.2 1.1 -0.2 1.9	6 34 -6 58	30 M 0123 0605 1201 1855	0.3 0.8 -0.1 1.5	9 24 -3 46		
			31 Sa 0046 0602 1214 1847	0.5 1.3 0.2 1.6	15 40 6 49								
											31 Th 0224 0707 1256 1945	0.0 0.6 -0.3 1.3	0 18 -9 40

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Chesapeake Bay Bridge Tunnel, Virginia, 2020

Times and Heights of High and Low Waters

January				February				March												
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height							
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm						
1 W	0005	2.0	61	16 Th	0015	2.5	76	1 Sa	0053	2.2	67	16 Su	0158	2.7	82					
	0608	0.3	9		0625	-0.2	-6		0707	0.4	12		0824	0.1	3	1 Su	0625	0.4	12	
	1218	2.2	67		1232	2.5	76		1302	1.9	58		1416	2.1	64	2 M	1222	2.0	61	
	1843	0.2	6		1854	-0.4	-12		1916	0.2	6		2028	-0.1	-3	3 Su	1830	0.3	9	
2 Th	0054	2.0	61	17 F	0117	2.5	76	2 Su	0143	2.2	67	17 M	0308	2.6	79	2 M	0055	2.4	73	
	0701	0.4	12		0732	-0.1	-3		0804	0.4	12		0935	0.2	6		3 M	0719	0.4	12
	1304	2.0	61		1331	2.3	70		1353	1.8	55		1529	2.0	61		4 M	1312	1.9	58
	1927	0.2	6		1951	-0.3	-9		2006	0.2	6		2133	0.0	0		5 M	1922	0.3	9
3 F	0146	2.1	64	18 Sa	0222	2.6	79	3 M	0238	2.2	67	18 Tu	0418	2.6	79	3 Tu	0151	2.4	73	
	0759	0.4	12		0842	0.0	0		0904	0.4	12		1041	0.2	6		4 Tu	0820	0.5	15
	1353	1.9	58		1436	2.1	64		1451	1.8	55		1641	2.0	61		5 Tu	1410	1.9	58
	2013	0.2	6		2051	-0.3	-9		2102	0.1	3		2236	0.0	0		6 Tu	2023	0.3	9
4 Sa	0241	2.1	64	19 Su	0330	2.6	79	4 Tu	0338	2.3	70	19 W	0521	2.6	79	4 W	0254	2.5	76	
	0858	0.4	12		0952	0.0	0		1004	0.3	9		1139	0.1	3		5 W	0924	0.4	12
	1447	1.8	55		1545	2.0	61		1553	1.8	55		1742	2.1	64		6 W	1516	2.0	61
	2101	0.1	3		2151	-0.3	-9		2159	0.0	0		2334	0.0	0		7 W	2127	0.2	6

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Chesapeake Bay Bridge Tunnel, Virginia, 2020

Times and Heights of High and Low Waters

October					November					December				
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	
<small>h m</small>	<small>ft</small>	<small>h m</small>	<small>ft</small>	<small>h m</small>	<small>ft</small>	<small>h m</small>	<small>ft</small>	<small>h m</small>	<small>ft</small>	<small>h m</small>	<small>ft</small>	<small>h m</small>	<small>ft</small>	
1 Th 0130 0747 1352 2001	0.3 94 12 88	16 F 0056 0719 1331 1940	-0.2 -6 110 -6 101	1 Su 0155 0823 1438 2038	0.2 94 9 76	16 M 0208 0840 1503 2103	-0.5 -15 113 -9 85	1 Tu 0200 0832 1450 2050	0.1 88 3 67	16 W 0242 0915 1540 2139	-0.5 -15 -12 -73	1 Th 0201 0820 1428 2034	0.3 94 12 85	
2 F 0201 0820 1428 2034	0.3 94 12 85	17 Sa 0143 0809 1424 2030	-0.3 -9 116 -6 98	2 M 0228 0857 1513 2113	0.3 94 9 73	17 Tu 0258 0930 1556 2155	-0.4 -12 110 -6 79	2 W 0238 0909 1529 2129	0.1 88 3 67	17 Th 0333 1004 1630 2229	-0.4 -12 -6 70	3 Sa 0231 0853 1504 2106	0.4 94 12 85	
3 Sa 0231 0853 1504 2106	0.4 94 12 85	18 Su 0230 0858 1518 2120	-0.3 -9 116 -6 94	3 Tu 0302 0931 1550 2150	0.3 91 12 73	18 W 0350 1022 1651 2249	-0.2 -6 -3 -76	3 Th 0318 0947 1609 2209	0.1 85 3 64	18 F 0426 1053 1721 2321	-0.2 -6 -3 67	4 Su 0302 0926 1539 2140	0.4 94 15 79	
4 Su 0302 0926 1539 2140	0.4 94 15 79	19 M 0319 0949 1612 2212	-0.2 -6 -3 88	4 W 0339 1008 1630 2229	0.4 91 12 70	19 Th 0445 1116 1748 2346	0.0 0 3 73	4 F 0401 1029 1653 2254	0.2 85 3 64	19 Sa 0520 1142 1812	0.0 79 0	5 M 0334 1000 1616 2216	0.5 94 18 76	
5 M 0334 1000 1616 2216	0.5 94 18 76	20 Tu 0410 1041 1709 2306	-0.1 -3 3 82	5 Th 0420 1049 1714 2313	0.5 88 15 67	20 F 0545 1213 1848	0.2 88 6	5 Sa 0449 1114 1742 2345	0.2 82 3 64	20 Su 0014 0617 1232 1903	2.2 6 73 3	6 Tu 0409 1037 1656 2254	0.6 91 21 73	
6 Tu 0409 1037 1656 2254	0.6 91 21 73	21 W 0506 1137 1811	0.1 3 9	6 F 0507 1135 1805	0.5 85 15	21 Sa 0048 0650 1313 1949	2.3 12 82 9	6 Su 0543 1204 1835	0.2 79 3	21 M 0110 0718 1324 1953	2.1 9 67 6	7 W 0448 1117 1741 2338	0.7 88 21 70	
7 W 0448 1117 1741 2338	0.7 88 21 70	22 Th 0006 0607 1238 1916	2.5 9 98 12	7 Sa 0003 0601 1227 1901	2.2 18 82 15	22 Su 0155 0759 1416 2046	2.2 15 76 12	7 M 0041 0645 1300 1931	2.2 9 76 3	22 Tu 0208 0821 1418 2041	2.1 12 64 6	8 Th 0534 1203 1833	0.7 88 24	
8 Th 0534 1203 1833	0.7 88 24	23 F 0114 0715 1346 2023	2.4 15 15	8 Su 0101 0705 1326 2001	2.2 18 82 12	23 M 0301 0906 1517 2137	2.3 15 73 9	8 Tu 0143 0753 1400 2028	2.3 6 76 -3	23 W 0306 0922 1512 2127	2.2 12 58 6	9 F 0027 0627 1256 1931	2.3 70 85 24	
9 F 0027 0627 1256 1931	2.3 70 85 24	24 Sa 0228 0827 1457 2126	2.4 18 85 15	9 M 0206 0813 1429 2100	2.3 15 82 9	24 Tu 0400 1006 1612 2222	2.4 15 70 9	9 W 0248 0902 1504 2125	2.5 6 73 -6	24 Th 0400 1018 1606 2211	2.3 12 58 3	10 Sa 0126 0729 1356 2032	2.3 70 85 21	
10 Sa 0126 0729 1356 2032	2.3 70 85 21	25 Su 0339 0936 1602 2220	2.4 18 82 15	10 Tu 0312 0921 1533 2156	2.5 12 85 3	25 W 0449 1058 1700 2302	2.5 12 70 6	10 Th 0352 1009 1608 2220	2.7 0 73 -9	25 F 0448 1108 1657 2253	2.4 9 58 3	11 Su 0231 0836 1501 2132	2.3 70 88 18	
11 Su 0231 0836 1501 2132	2.3 70 88 18	26 M 0438 1036 1656 2306	2.6 18 82 12	11 W 0415 1026 1635 2249	2.8 6 85 -3	26 Th 0532 1144 1742 2338	2.6 9 70 6	11 F 0453 1111 1709 2314	3.0 -6 73 -15	26 Sa 0533 1152 1744 2335	2.5 6 58 0	12 M 0338 0943 1605 2228	2.5 15 91 12	
12 M 0338 0943 1605 2228	2.5 15 91 12	27 Tu 0526 1128 1742 2345	2.7 15 82 12	12 Th 0513 1126 1732 2339	3.1 0 88 -9	27 F 0610 1225 1821	2.8 3 70	12 Sa 0549 1209 1808	3.2 -9 76	27 Su 0614 1233 1828	2.6 3 61	13 Tu 0440 1045 1704 2319	2.8 9 94 6	
13 Tu 0440 1045 1704 2319	2.8 9 94 6	28 W 0607 1212 1821	2.8 12 82	13 F 0607 1223 1827	3.4 -6 88	28 Sa 0013 0646 1302 1859	0.1 88 6 70	13 Su 0007 0643 1304 1904	-0.5 104 -12 76	28 M 0016 0654 1312 1909	-0.1 82 0 61	14 W 0536 1143 1758	3.1 3 98	
14 W 0536 1143 1758	3.1 3 98	29 Th 0020 0644 1252 1856	0.3 91 12 82	14 Sa 0029 0659 1317 1919	-0.4 110 -9 88	29 Su 0048 0722 1339 1936	0.1 88 3 70	14 M 0059 0735 1357 1957	-0.6 104 -15 76	29 Tu 0057 0733 1350 1949	-0.1 82 -3 64	15 Th 0008 0629 1238 1850	-0.1 104 -3 101	
15 Th 0008 0629 1238 1850	-0.1 104 -3 101	30 F 0052 0718 1329 1930	0.3 94 9 79	15 Su 0118 0750 1410 2011	-0.5 113 -12 85	30 M 0124 0757 1414 2013	0.1 88 3 67	15 Tu 0151 0825 1449 2048	-0.6 104 -12 76	30 W 0137 0812 1428 2029	-0.2 85 -3 64	31 Th 0218 0851 1508 2110	-0.2 85 -3 64	

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Duck Pier, North Carolina, 2020

Times and Heights of High and Low Waters

April				May				June			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm
1 W	0028 3.3 101 0704 0.5 15 1301 2.6 79 1906 0.4 12	16 Th	0228 3.1 94 0901 0.5 15 1508 2.7 82 2117 0.6 18	1 F	0105 3.4 104 0740 0.3 9 1347 2.9 88 1955 0.3 9	16 Sa	0240 2.9 88 0902 0.5 15 1523 2.9 88 2142 0.6 18	1 M	0248 3.2 98 0907 -0.2 -6 1531 3.8 116 2155 -0.1 -3	16 Tu	0327 2.6 79 0928 0.4 12 1605 3.3 101 2238 0.5 15
2 Th	0132 3.3 101 0809 0.4 12 1407 2.7 82 2013 0.3 9	17 F	0332 3.1 94 0956 0.5 15 1605 2.9 88 2217 0.5 15	2 Sa	0210 3.4 104 0840 0.1 3 1451 3.2 98 2104 0.1 3	17 Su	0335 2.8 85 0946 0.4 12 1610 3.1 94 2233 0.5 15	2 Tu	0350 3.2 98 1002 -0.3 -9 1629 4.1 125 2257 -0.3 -9	17 W	0417 2.6 79 1011 0.3 9 1647 3.5 107 2322 0.4 12
3 F	0239 3.4 104 0912 0.3 9 1513 2.9 88 2121 0.1 3	18 Sa	0425 3.1 94 1041 0.4 12 1652 3.0 91 2306 0.4 12	3 Su	0314 3.4 104 0938 -0.1 -3 1552 3.6 110 2209 -0.1 -3	18 M	0422 2.8 85 1025 0.3 9 1651 3.3 101 2317 0.4 12	3 W	0449 3.2 98 1056 -0.4 -12 1723 4.3 131 2354 -0.4 -12	18 Th	0504 2.6 79 1055 0.2 6 1728 3.6 110
4 Sa	0343 3.6 110 1011 0.0 0 1615 3.3 101 2225 -0.2 -6	19 Su	0509 3.1 94 1119 0.3 9 1731 3.2 98 2348 0.3 9	4 M	0415 3.5 107 1032 -0.3 -9 1649 4.0 122 2310 -0.4 -12	19 Tu	0505 2.8 85 1102 0.3 9 1728 3.5 107 2357 0.3 9	4 Th	0546 3.2 98 1148 -0.5 -15 1815 4.4 134	19 F	0004 0.2 6 0550 2.7 82 1138 0.2 6 1808 3.8 116
5 Su	0442 3.7 113 1104 -0.2 -6 1711 3.7 113 2325 -0.5 -15	20 M	0548 3.1 94 1152 0.2 6 1806 3.4 104	5 Tu	0512 3.6 110 1123 -0.5 -15 1742 4.3 131	20 W	0545 2.8 85 1138 0.2 6 1804 3.6 110	5 F	0048 -0.5 -15 0639 3.2 98 1239 -0.4 -12 1905 4.5 137	20 Sa	0044 0.1 3 0633 2.8 85 1221 0.1 3 1849 3.9 119
6 M	0537 3.9 119 1153 -0.5 -15 1804 4.0 122	21 Tu	0026 0.2 6 0623 3.1 94 1223 0.1 3 1839 3.5 107	6 W	0007 -0.6 -18 0606 3.6 110 1213 -0.6 -18 1833 4.5 137	21 Th	0034 0.2 6 0624 2.9 88 1215 0.1 3 1840 3.7 113	6 Sa	0140 -0.5 -15 0731 3.2 98 1330 -0.4 -12 1954 4.4 134	21 Su	0125 0.0 0 0716 2.8 85 1305 0.0 0 1931 3.9 119
7 Tu	0020 -0.7 -21 0629 3.9 119 1241 -0.7 -21 1854 4.3 131	22 W	0101 0.1 3 0657 3.1 94 1254 0.1 3 1912 3.6 110	7 Th	0101 -0.7 -21 0658 3.6 110 1302 -0.6 -18 1923 4.6 140	22 F	0111 0.1 3 0703 2.9 88 1252 0.1 3 1916 3.8 116	7 Su	0229 -0.5 -15 0822 3.1 94 1420 -0.2 -6 2043 4.2 128	22 M	0206 -0.1 -3 0800 2.9 88 1350 0.0 0 2013 4.0 122
8 W	0114 -0.8 -24 0719 3.9 119 1328 -0.7 -21 1944 4.5 137	23 Th	0135 0.1 3 0731 3.1 94 1327 0.1 3 1945 3.7 113	8 F	0153 -0.7 -21 0748 3.5 107 1351 -0.5 -15 2012 4.5 137	23 Sa	0148 0.0 0 0741 2.9 88 1331 0.1 3 1953 3.8 116	8 M	0318 -0.3 -9 0912 3.1 94 1511 0.0 0 2131 3.9 119	23 Tu	0248 -0.2 -6 0844 3.0 91 1437 0.0 0 2058 3.9 119
9 Th	0207 -0.8 -24 0808 3.8 116 1416 -0.7 -21 2033 4.5 137	24 F	0210 0.1 3 0806 3.0 91 1400 0.1 3 2019 3.7 113	9 Sa	0244 -0.6 -18 0839 3.4 104 1440 -0.4 -12 2102 4.4 134	24 Su	0226 0.0 0 0821 2.8 85 1411 0.1 3 2033 3.8 116	9 Tu	0406 -0.2 -6 1002 3.0 91 1602 0.2 6 2219 3.7 113	24 W	0332 -0.2 -6 0931 3.0 91 1527 0.0 0 2144 3.8 116
10 F	0259 -0.7 -21 0857 3.6 110 1504 -0.5 -15 2123 4.4 134	25 Sa	0245 0.1 3 0842 2.9 88 1436 0.2 6 2055 3.7 113	10 Su	0336 -0.4 -12 0930 3.2 98 1531 -0.2 -6 2153 4.1 125	25 M	0306 0.0 0 0902 2.8 85 1454 0.2 6 2114 3.8 116	10 W	0454 0.0 0 1054 2.9 88 1655 0.4 12 2307 3.4 104	25 Th	0417 -0.2 -6 1021 3.1 94 1620 0.1 3 2233 3.7 113
11 Sa	0352 -0.5 -15 0948 3.4 104 1554 -0.3 -9 2215 4.1 125	26 Su	0324 0.1 3 0921 2.8 85 1515 0.3 9 2134 3.6 110	11 M	0428 -0.2 -6 1023 3.0 91 1624 0.1 3 2245 3.8 116	26 Tu	0349 0.0 0 0946 2.8 85 1540 0.2 6 2200 3.7 113	11 Th	0541 0.2 6 1147 2.8 85 1751 0.6 18 2357 3.1 94	26 F	0505 -0.2 -6 1114 3.2 98 1718 0.1 3 2326 3.5 107
12 Su	0447 -0.2 -6 1041 3.1 94 1647 0.0 0 2310 3.8 116	27 M	0405 0.2 6 1002 2.8 85 1558 0.3 9 2218 3.5 107	12 Tu	0522 0.0 0 1119 2.9 88 1722 0.4 12 2340 3.5 107	27 W	0435 0.0 0 1035 2.8 85 1632 0.3 9 2249 3.6 110	12 F	0627 0.3 9 1242 2.8 85 1851 0.7 21	27 Sa	0556 -0.2 -6 1211 3.4 104 1821 0.2 6
13 M	0546 0.1 3 1139 2.9 88 1746 0.2 6	28 Tu	0451 0.3 9 1049 2.7 82 1646 0.4 12 2307 3.5 107	13 W	0619 0.2 6 1220 2.8 85 1825 0.5 15	28 Th	0525 0.1 3 1128 2.9 88 1729 0.3 9 2344 3.5 107	13 Sa	0048 2.9 88 0713 0.4 12 1337 2.9 88 1954 0.8 24	28 Su	0022 3.3 101 0648 -0.2 -6 1310 3.5 107 1928 0.2 6
14 Tu	0010 3.5 107 0650 0.3 9 1245 2.7 82 1853 0.5 15	29 W	0543 0.3 9 1142 2.7 82 1742 0.4 12	14 Th	0039 3.2 98 0716 0.4 12 1325 2.7 82 1934 0.7 21	29 F	0618 0.1 3 1227 3.0 91 1832 0.3 9	14 Su	0141 2.7 82 0759 0.4 12 1430 3.0 91 2054 0.7 21	29 M	0122 3.2 98 0744 -0.2 -6 1412 3.7 113 2036 0.2 6
15 W	0117 3.3 101 0757 0.4 12 1359 2.7 82 2007 0.6 18	30 Th	0003 3.4 104 0640 0.3 9 1242 2.8 85 1846 0.4 12	15 F	0141 3.0 91 0812 0.5 15 1428 2.8 85 2042 0.7 21	30 Sa	0042 3.4 104 0714 0.0 0 1329 3.2 98 1940 0.2 6	15 M	0234 2.6 79 0843 0.4 12 1519 3.1 94 2150 0.7 21	30 Tu	0225 3.0 91 0840 -0.2 -6 1513 3.9 119 2143 0.1 3
						31 Su	0144 3.3 101 0811 -0.1 -3 1431 3.5 107 2049 0.1 3				

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Oregon Inlet, North Carolina, 2020

Times and Heights of High and Low Waters

January				February				March																
Time	Height			Time	Height			Time	Height			Time	Height											
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm					
1 W	0012	0.7	21		16 Th	0648	0.0	0		1 Su	0137	1.1	34		16 M	0111	1.1	34						
	0614	0.1	3			1206	0.9	27			0852	0.1	3			0833	0.1	3						
	1149	0.7	21			1916	0.0	0			1408	0.8	24			1355	0.8	24						
	1906	0.0	0			0039	0.7	21			2049	0.1	3			2025	0.2	6						
2 Th	0104	0.7	21		17 F	0059	1.0	30		2 Su	0128	0.8	24		17 M	0244	1.1	34		17 Tu	0219	1.1	34	
	0710	0.1	3			0759	0.1	3			0813	0.1	3			0958	0.1	3			0937	0.1	3	
	1236	0.7	21			1310	0.8	24			1340	0.6	18			1521	0.8	24			1508	0.8	24	
	1944	0.0	0			2011	0.0	0			2005	0.1	3			2152	0.1	3			2130	0.2	6	
3 F	0156	0.7	21		18 Sa	0203	1.0	30		3 M	0223	0.8	24		18 Tu	0349	1.0	30		3 W	0325	1.0	30	
	0809	0.1	3			0909	0.1	3			0919	0.1	3			1100	0.1	3			1037	0.1	3	
	1331	0.6	18			1421	0.8	24			1446	0.6	18			1625	0.8	24			1612	0.8	24	
	2025	0.0	0			2109	0.0	0			2100	0.1	3			2252	0.1	3			2231	0.2	6	

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Wilmington, North Carolina, 2020

Times and Heights of High and Low Waters

July					August					September				
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	
h m	ft	h m	ft	h m	ft	h m	ft	h m	ft	h m	ft	h m	ft	
1 W	0023 0.0 0 0543 4.1 125 1234 -0.4 -12 1832 5.0 152	16 Th	0025 0.5 15 0557 3.6 110 1214 0.1 3 1831 4.3 131	1 Sa	0158 0.0 0 0721 4.1 125 1403 -0.2 -6 2002 5.0 152	16 Su	0138 0.5 15 0702 3.9 119 1328 0.1 3 1931 4.7 143	1 Tu	0312 0.1 3 0844 4.4 134 1522 0.1 3 2112 4.9 149	16 W	0248 0.2 6 0816 4.8 146 1459 -0.1 -3 2040 5.2 158			
2 Th	0122 -0.1 -3 0642 4.1 125 1329 -0.4 -12 1927 5.1 155	17 F	0118 0.4 12 0647 3.7 113 1305 0.1 3 1919 4.5 137	2 Su	0250 0.0 0 0814 4.1 125 1455 -0.2 -6 2051 5.0 152	17 M	0229 0.3 9 0752 4.1 125 1424 0.0 0 2019 4.9 149	2 W	0355 0.1 3 0929 4.4 134 1607 0.2 6 2153 4.8 146	17 Th	0337 0.0 0 0906 5.0 152 1554 -0.2 -6 2127 5.2 158			
3 F	0218 -0.1 -3 0738 4.1 125 1422 -0.4 -12 2020 5.1 155	18 Sa	0209 0.3 9 0736 3.7 113 1356 0.0 0 2003 4.6 140	3 M	0339 -0.1 -3 0904 4.1 125 1544 -0.1 -3 2137 4.9 149	18 Tu	0318 0.2 6 0840 4.3 131 1518 -0.1 -3 2104 5.1 155	3 Th	0436 0.2 6 1012 4.4 134 1649 0.3 9 2233 4.7 143	18 F	0425 -0.1 -3 0956 5.2 158 1647 -0.2 -6 2215 5.2 158			
4 Sa	0312 -0.2 -6 0831 4.1 125 1514 -0.3 -9 2110 5.1 155	19 Su	0259 0.2 6 0821 3.8 116 1446 -0.1 -3 2045 4.8 146	4 Tu	0425 0.0 0 0951 4.1 125 1630 0.0 0 2220 4.8 146	19 W	0406 0.0 0 0927 4.5 137 1610 -0.2 -6 2149 5.1 155	4 F	0513 0.3 9 1053 4.4 134 1729 0.4 12 2311 4.5 137	19 Sa	0511 -0.2 -6 1048 5.3 162 1740 -0.1 -3 2305 5.0 152			
5 Su	0403 -0.2 -6 0923 4.0 122 1604 -0.2 -6 2158 5.0 152	20 M	0347 0.1 3 0905 3.9 119 1537 -0.1 -3 2125 4.9 149	5 W	0508 0.0 0 1038 4.1 125 1713 0.2 6 2303 4.7 143	20 Th	0452 -0.1 -3 1016 4.6 140 1702 -0.2 -6 2235 5.1 155	5 Sa	0546 0.4 12 1132 4.3 131 1807 0.6 18 2348 4.3 131	20 Su	0558 -0.2 -6 1144 5.3 162 1833 0.0 0			
6 M	0451 -0.2 -6 1013 4.0 122 1652 -0.1 -3 2245 4.9 149	21 Tu	0433 0.0 0 0948 4.0 122 1626 -0.2 -6 2205 4.9 149	6 Th	0548 0.1 3 1124 4.0 122 1755 0.3 9 2345 4.5 137	21 F	0538 -0.2 -6 1108 4.7 143 1754 -0.2 -6 2325 5.0 152	6 Su	0616 0.4 12 1208 4.3 131 1845 0.7 21	21 M	0000 4.8 146 0647 -0.1 -3 1243 5.2 158 1928 0.2 6			
7 Tu	0536 -0.1 -3 1104 3.9 119 1737 0.1 3 2332 4.7 143	22 W	0518 0.0 0 1033 4.1 125 1715 -0.2 -6 2249 4.9 149	7 F	0625 0.2 6 1210 4.0 122 1835 0.5 15	22 Sa	0624 -0.2 -6 1204 4.8 146 1847 0.0 0	7 M	0025 4.1 125 0643 0.5 15 1240 4.2 128 1925 0.8 24	22 Tu	0059 4.6 140 0738 0.0 0 1343 5.1 155 2026 0.4 12			
8 W	0620 0.0 0 1154 3.8 116 1822 0.2 6	23 Th	0603 -0.1 -3 1124 4.2 128 1806 -0.1 -3 2338 4.8 146	8 Sa	0027 4.3 131 0700 0.3 9 1255 4.0 122 1916 0.6 18	23 Su	0019 4.8 146 0712 -0.2 -6 1303 4.9 149 1944 0.1 3	8 Tu	0102 4.0 122 0711 0.5 15 1309 4.2 128 2010 0.9 27	23 W	0159 4.4 134 0834 0.2 6 1443 5.0 152 2126 0.5 15			
9 Th	0019 4.5 137 0702 0.1 3 1245 3.8 116 1906 0.4 12	24 F	0649 -0.2 -6 1221 4.3 131 1859 -0.1 -3	9 Su	0110 4.1 125 0732 0.3 9 1341 3.9 119 2000 0.7 21	24 M	0116 4.6 140 0803 -0.1 -3 1403 4.9 149 2043 0.3 9	9 W	0143 3.9 119 0749 0.5 15 1350 4.2 128 2107 1.0 30	24 Th	0258 4.3 131 0934 0.3 9 1542 4.9 149 2226 0.5 15			
10 F	0105 4.3 131 0742 0.1 3 1336 3.8 116 1951 0.5 15	25 Sa	0032 4.7 143 0736 -0.2 -6 1321 4.4 134 1956 0.1 3	10 M	0154 3.9 119 0805 0.3 9 1426 4.0 122 2051 0.8 24	25 Tu	0215 4.4 134 0858 -0.1 -3 1503 4.9 149 2145 0.4 12	10 Th	0233 3.8 116 0839 0.5 15 1446 4.3 131 2210 1.0 30	25 F	0357 4.2 128 1035 0.3 9 1639 4.8 146 2324 0.4 12			
11 Sa	0152 4.1 125 0823 0.2 6 1425 3.8 116 2041 0.6 18	26 Su	0131 4.6 140 0827 -0.2 -6 1421 4.5 137 2058 0.2 6	11 Tu	0240 3.8 116 0844 0.3 9 1512 4.0 122 2149 0.8 24	26 W	0314 4.3 131 0956 0.0 0 1601 4.9 149 2247 0.4 12	11 F	0331 3.8 116 0942 0.5 15 1553 4.3 131 2312 0.9 27	26 Sa	0455 4.2 128 1134 0.3 9 1735 4.8 146			
12 Su	0238 4.0 122 0905 0.2 6 1514 3.8 116 2136 0.7 21	27 M	0230 4.4 134 0921 -0.2 -6 1520 4.6 140 2202 0.2 6	12 W	0329 3.7 113 0933 0.3 9 1601 4.1 125 2250 0.8 24	27 Th	0413 4.2 128 1056 0.0 0 1700 4.9 149 2346 0.3 9	12 Sa	0432 3.8 116 1054 0.5 15 1700 4.5 137	27 Su	0018 0.3 9 0552 4.3 131 1230 0.2 6 1828 4.8 146			
13 M	0326 3.8 116 0948 0.2 6 1603 3.9 119 2233 0.7 21	28 Tu	0328 4.3 131 1019 -0.2 -6 1618 4.7 143 2305 0.2 6	13 Th	0420 3.7 113 1030 0.3 9 1653 4.2 128 2348 0.7 21	28 F	0512 4.1 125 1155 0.0 0 1757 4.9 149	13 Su	0011 0.8 24 0532 4.0 122 1202 0.4 12 1803 4.7 143	28 M	0109 0.2 6 0645 4.4 134 1322 0.2 6 1917 4.9 149			
14 Tu	0415 3.7 113 1035 0.2 6 1652 4.0 122 2330 0.6 18	29 W	0428 4.1 125 1117 -0.3 -9 1717 4.8 146	14 F	0514 3.7 113 1131 0.3 9 1747 4.3 131	29 Sa	0043 0.2 6 0610 4.2 128 1250 0.0 0 1852 4.9 149	14 M	0106 0.6 18 0630 4.2 128 1304 0.2 6 1859 4.9 149	29 Tu	0156 0.2 6 0735 4.5 137 1411 0.2 6 2002 4.9 149			
15 W	0505 3.7 113 1124 0.1 3 1742 4.2 128	30 Th	0006 0.1 3 0527 4.1 125 1214 -0.3 -9 1815 4.9 149	15 Sa	0044 0.6 18 0609 3.8 116 1230 0.2 6 1841 4.5 137	30 Su	0135 0.2 6 0704 4.3 131 1344 0.0 0 1942 5.0 152	15 Tu	0158 0.4 12 0725 4.5 137 1403 0.0 0 1951 5.1 155	30 W	0241 0.1 3 0822 4.6 140 1458 0.2 6 2045 4.9 149			
		31 F	0103 0.1 3 0625 4.1 125 1309 -0.3 -9 1910 5.0 152			31 M	0225 0.1 3 0756 4.3 131 1434 0.0 0 2029 5.0 152							

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Wilmington, North Carolina, 2020

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>
1 Th O	0323 0.2 6 0905 4.7 143 1542 0.3 9 2125 4.8 146	16 F F	0308 -0.1 -3 0846 5.3 162 1537 -0.2 -6 2104 5.1 155	1 Su	0401 0.2 6 0954 4.7 143 1641 0.4 12 2210 4.2 128	16 M	0422 -0.4 -12 1010 5.5 168 1706 -0.2 -6 2225 4.6 140	1 Tu	0406 0.1 3 0957 4.6 140 1658 0.3 9 2216 3.9 119	16 W	0452 -0.4 -12 1045 5.1 155 1737 -0.2 -6 2259 4.2 128
2 F	0401 0.2 6 0945 4.7 143 1624 0.4 12 2203 4.6 140	17 Sa	0357 -0.2 -6 0937 5.5 168 1631 -0.2 -6 2153 5.0 152	2 M	0434 0.3 9 1022 4.6 140 1720 0.5 15 2241 4.1 125	17 Tu	0512 -0.3 -9 1104 5.3 162 1757 -0.1 -3 2319 4.4 134	2 W	0442 0.1 3 1017 4.5 137 1739 0.4 12 2241 3.8 116	17 Th	0541 -0.3 -9 1137 4.9 149 1825 -0.1 -3 2354 4.1 125
3 Sa	0436 0.3 9 1022 4.6 140 1704 0.5 15 2239 4.4 134	18 Su	0445 -0.3 -9 1028 5.5 168 1723 -0.1 -3 2244 4.8 146	3 Tu	0505 0.4 12 1036 4.6 140 1758 0.6 18 2303 4.0 122	18 W	0601 -0.2 -6 1159 5.1 155 1849 0.1 3	3 Th	0518 0.1 3 1038 4.5 137 1819 0.4 12 2307 3.8 116	18 F	0629 -0.1 -3 1230 4.7 143 1913 0.1 3
4 Su	0508 0.4 12 1054 4.6 140 1743 0.6 18 2312 4.3 131	19 M	0534 -0.2 -6 1123 5.4 165 1816 0.0 0 2340 4.6 140	4 W	0535 0.4 12 1054 4.6 140 1837 0.7 21 2326 3.9 119	19 Th	0017 4.2 128 0652 0.0 0 1257 4.9 149 1941 0.2 6	4 F	0557 0.1 3 1115 4.6 140 1901 0.5 15 2348 3.8 116	19 Sa	0049 3.9 119 0718 0.1 3 1322 4.5 137 2001 0.2 6
5 M	0536 0.5 15 1116 4.5 137 1820 0.7 21 2339 4.1 125	20 Tu	0623 -0.1 -3 1221 5.3 162 1910 0.2 6	5 Th	0609 0.4 12 1131 4.6 140 1919 0.8 24	20 F	0116 4.1 125 0745 0.2 6 1353 4.7 143 2034 0.3 9	5 Sa	0642 0.2 6 1205 4.5 137 1947 0.5 15	20 Su	0145 3.9 119 0810 0.3 9 1413 4.3 131 2050 0.2 6
6 Tu	0602 0.5 15 1129 4.5 137 1858 0.8 24	21 W	0039 4.4 134 0715 0.1 3 1321 5.1 155 2005 0.3 9	6 F	0006 3.8 116 0651 0.4 12 1220 4.5 137 2008 0.8 24	21 Sa	0214 4.0 122 0842 0.4 12 1448 4.5 137 2128 0.3 9	6 Su	0044 3.8 116 0734 0.2 6 1304 4.5 137 2040 0.4 12	21 M	0239 3.8 116 0905 0.4 12 1503 4.1 125 2139 0.2 6
7 W	0003 4.0 122 0633 0.5 15 1202 4.5 137 1940 0.9 27	22 Th	0139 4.2 128 0811 0.3 9 1420 4.9 149 2102 0.4 12	7 Sa	0101 3.8 116 0743 0.4 12 1319 4.5 137 2106 0.8 24	22 Su	0311 3.9 119 0940 0.4 12 1540 4.4 134 2222 0.3 9	7 M	0154 3.9 119 0839 0.3 9 1413 4.4 134 2137 0.3 9	22 Tu	0331 3.9 119 1001 0.5 15 1553 4.0 122 2228 0.2 6
8 Th	0041 3.9 119 0713 0.5 15 1249 4.5 137 2033 1.0 30	23 F	0239 4.1 125 0910 0.4 12 1518 4.7 143 2200 0.5 15	8 Su	0210 3.9 119 0849 0.5 15 1430 4.5 137 2207 0.6 18	23 M	0406 4.0 122 1039 0.4 12 1632 4.3 131 2312 0.2 6	8 Tu	0306 4.1 125 0952 0.3 9 1523 4.4 134 2236 0.1 3	23 W	0424 3.9 119 1058 0.5 15 1643 3.9 119 2316 0.2 6
9 F	0134 3.8 116 0803 0.6 18 1348 4.4 134 2135 1.0 30	24 Sa	0337 4.1 125 1011 0.4 12 1613 4.6 140 2256 0.4 12	9 M	0326 4.0 122 1006 0.4 12 1546 4.5 137 2307 0.5 15	24 Tu	0500 4.1 125 1134 0.4 12 1722 4.3 131	9 W	0413 4.3 131 1102 0.2 6 1630 4.4 134 2334 -0.1 -3	24 Th	0516 4.0 122 1152 0.4 12 1733 3.9 119
10 Sa	0242 3.8 116 0909 0.6 18 1500 4.5 137 2239 0.9 27	25 Su	0434 4.2 128 1109 0.4 12 1706 4.6 140 2349 0.3 9	10 Tu	0435 4.2 128 1119 0.3 9 1656 4.6 140	25 W	0000 0.1 3 0552 4.2 128 1227 0.3 9 1811 4.2 128	10 Th	0516 4.5 137 1208 0.1 3 1733 4.4 134	25 F	0003 0.1 3 0607 4.1 125 1244 0.3 9 1824 3.9 119
11 Su	0354 3.9 119 1026 0.5 15 1618 4.6 140 2338 0.7 21	26 M	0529 4.3 131 1205 0.4 12 1758 4.6 140	11 W	0003 0.2 6 0538 4.5 137 1225 0.1 3 1759 4.7 143	26 Th	0046 0.0 0 0642 4.4 134 1317 0.3 9 1859 4.2 128	11 F	0029 -0.2 -6 0617 4.8 146 1309 -0.1 -3 1833 4.4 134	26 Sa	0048 0.0 0 0656 4.3 131 1334 0.3 9 1912 3.9 119
12 M	0501 4.1 125 1139 0.4 12 1727 4.7 143	27 Tu	0038 0.2 6 0622 4.4 134 1256 0.3 9 1846 4.6 140	12 Th	0057 0.0 0 0638 4.9 149 1326 0.0 0 1856 4.8 146	27 F	0129 0.0 0 0728 4.5 137 1404 0.2 6 1944 4.2 128	12 Sa	0124 -0.4 -12 0715 5.1 155 1407 -0.2 -6 1929 4.5 137	27 Su	0133 0.0 0 0742 4.4 134 1422 0.2 6 1958 3.9 119
13 Tu	0034 0.5 15 0603 4.4 134 1243 0.2 6 1828 4.9 149	28 W	0123 0.1 3 0711 4.5 137 1346 0.2 6 1932 4.6 140	13 F	0149 -0.2 -6 0734 5.2 158 1424 -0.2 -6 1950 4.8 146	28 Sa	0211 0.0 0 0812 4.6 140 1450 0.2 6 2027 4.2 128	13 Su	0218 -0.5 -15 0810 5.2 158 1503 -0.3 -9 2023 4.5 137	28 M	0217 0.0 0 0825 4.4 134 1508 0.2 6 2040 3.9 119
14 W	0127 0.2 6 0700 4.8 146 1344 0.0 0 1923 5.0 152	29 Th	0207 0.1 3 0757 4.7 143 1432 0.2 6 2015 4.6 140	14 Sa	0241 -0.4 -12 0827 5.4 165 1520 -0.2 -6 2042 4.8 146	29 Su	0251 0.0 0 0852 4.6 140 1535 0.2 6 2107 4.1 125	14 M	0310 -0.5 -15 0902 5.3 162 1556 -0.3 -9 2115 4.4 134	29 Tu	0301 0.0 0 0903 4.5 137 1553 0.2 6 2119 3.9 119
15 Th	0218 0.0 0 0754 5.1 155 1441 -0.1 -3 2014 5.1 155	30 F	0247 0.1 3 0839 4.7 143 1517 0.3 9 2056 4.5 137	15 Su	0332 -0.4 -12 0918 5.5 168 1614 -0.3 -9 2133 4.7 143	30 M	0329 0.1 3 0928 4.6 140 1617 0.3 9 2144 4.0 122	15 Tu	0402 -0.5 -15 0954 5.2 158 1647 -0.3 -9 2206 4.3 131	30 W	0343 -0.1 -3 0938 4.5 137 1636 0.2 6 2154 3.9 119
		31 Sa	0326 0.2 6 0919 4.7 143 1600 0.3 9 2135 4.4 134						31 Th	0425 -0.1 -3 1007 4.6 140 1718 0.2 6 2226 3.9 119	

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Myrtle Beach, South Carolina, 2020

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm
1 Th	0043 0.5 15 0650 5.6 171 1307 0.6 18 1910 5.8 177	16 F	0018 -0.4 -12 0628 6.8 207 1247 -0.5 -15 1845 6.6 201	1 Su	0118 0.4 12 0727 5.8 177 1358 0.7 21 1950 5.1 155	16 M	0132 -0.8 -24 0750 7.2 219 1417 -0.6 -18 2007 5.7 174	1 Tu	0126 0.1 3 0736 5.7 174 1414 0.5 15 2000 4.6 140	16 W	0205 -0.8 -24 0825 6.5 198 1452 -0.5 -15 2042 5.0 152
2 F	0118 0.5 15 0724 5.6 171 1345 0.7 21 1945 5.6 171	17 Sa	0106 -0.6 -18 0718 7.1 216 1340 -0.6 -18 1935 6.4 195	2 M	0154 0.4 12 0800 5.8 177 1436 0.8 24 2026 4.9 149	17 Tu	0222 -0.6 -18 0842 7.0 213 1510 -0.4 -12 2100 5.4 165	2 W	0205 0.1 3 0812 5.6 171 1453 0.5 15 2038 4.4 134	17 Th	0256 -0.6 -18 0917 6.2 189 1540 -0.3 -9 2136 4.8 146
3 Sa	0152 0.5 15 0758 5.7 174 1422 0.8 24 2020 5.4 165	18 Su	0154 -0.6 -18 0809 7.2 219 1433 -0.5 -15 2026 6.2 189	3 Tu	0231 0.5 15 0835 5.7 174 1514 0.9 27 2103 4.7 143	18 W	0314 -0.4 -12 0937 6.6 201 1602 -0.1 -3 2158 5.1 155	3 Th	0246 0.2 6 0852 5.5 168 1533 0.6 18 2120 4.3 131	18 F	0346 -0.3 -9 1011 5.8 177 1628 0.0 0 2233 4.5 137
4 Su	0227 0.6 18 0831 5.6 171 1500 0.9 27 2056 5.1 155	19 M	0244 -0.5 -15 0901 7.1 216 1527 -0.3 -9 2120 5.8 177	4 W	0309 0.7 21 0914 5.6 171 1553 1.1 34 2144 4.4 134	19 Th	0407 0.0 0 1036 6.2 189 1655 0.3 9 2301 4.8 146	4 F	0328 0.3 9 0936 5.4 165 1615 0.6 18 2210 4.2 128	19 Sa	0437 0.1 3 1106 5.4 165 1716 0.2 6 2332 4.4 134
5 M	0302 0.7 21 0906 5.5 168 1538 1.1 34 2134 4.8 146	20 Tu	0334 -0.2 -6 0958 6.8 207 1621 0.1 3 2219 5.4 165	5 Th	0350 0.8 24 0959 5.4 165 1635 1.2 37 2234 4.3 131	20 F	0503 0.4 12 1137 5.8 177 1752 0.6 18	5 Sa	0414 0.4 12 1027 5.3 162 1700 0.7 21 2307 4.3 131	20 Su	0530 0.5 15 1200 5.0 152 1806 0.4 12
6 Tu	0339 0.8 24 0946 5.4 165 1617 1.3 40 2217 4.6 140	21 W	0428 0.1 3 1100 6.4 195 1718 0.5 15 2323 5.1 155	6 F	0434 0.9 27 1051 5.3 162 1722 1.3 40 2331 4.3 131	21 Sa	0005 4.6 140 0604 0.7 21 1237 5.5 168 1851 0.8 24	6 Su	0504 0.5 15 1123 5.3 162 1750 0.6 18	21 M	0029 4.3 131 0628 0.8 24 1252 4.7 143 1857 0.5 15
7 W	0418 1.0 30 1031 5.3 162 1700 1.5 46 2306 4.4 134	22 Th	0526 0.5 15 1204 6.1 186 1821 0.8 24	7 Sa	0524 1.0 30 1149 5.3 162 1816 1.2 37	22 Su	0106 4.5 137 0711 1.0 30 1332 5.2 158 1952 0.8 24	7 M	0007 4.4 134 0601 0.5 15 1221 5.2 158 1846 0.5 15	22 Tu	0123 4.3 131 0731 1.0 30 1342 4.5 137 1950 0.6 18
8 Th	0501 1.1 34 1123 5.3 162 1748 1.6 49	23 F	0029 4.9 149 0631 0.8 24 1306 5.9 180 1928 1.0 30	8 Su	0031 4.4 134 0622 1.0 30 1247 5.4 165 1918 1.1 34	23 M	0203 4.6 140 0820 1.1 34 1424 5.0 152 2047 0.8 24	8 Tu	0107 4.7 143 0707 0.5 15 1319 5.2 158 1947 0.3 9	23 W	0212 4.3 131 0835 1.0 30 1430 4.3 131 2041 0.5 15
9 F	0000 4.3 131 0550 1.2 37 1219 5.3 162 1846 1.6 49	24 Sa	0132 4.8 146 0744 1.0 30 1405 5.7 174 2034 1.0 30	9 M	0130 4.7 143 0729 0.9 27 1345 5.5 168 2021 0.8 24	24 Tu	0256 4.7 143 0921 1.1 34 1514 4.9 149 2134 0.7 21	9 W	0205 5.1 155 0817 0.4 12 1417 5.2 158 2048 0.0 0	24 Th	0300 4.5 137 0932 0.9 27 1519 4.2 128 2129 0.4 12
10 Sa	0057 4.4 134 0649 1.2 37 1317 5.4 165 1952 1.5 46	25 Su	0232 4.8 146 0854 1.1 34 1500 5.5 168 2130 1.0 30	10 Tu	0228 5.0 152 0838 0.6 18 1443 5.7 174 2119 0.4 12	25 W	0345 4.8 146 1012 0.9 27 1601 4.9 149 2215 0.5 15	10 Th	0303 5.5 168 0924 0.1 3 1516 5.3 162 2145 -0.3 -9	25 F	0347 4.6 140 1022 0.8 24 1607 4.2 128 2213 0.3 9
11 Su	0154 4.6 140 0756 1.0 30 1414 5.6 171 2055 1.2 37	26 M	0328 4.9 149 0952 1.0 30 1552 5.5 168 2216 0.8 24	11 W	0326 5.5 168 0942 0.3 9 1541 5.8 177 2212 0.0 0	26 Th	0430 5.0 152 1056 0.8 24 1647 4.8 146 2254 0.4 12	11 F	0401 5.9 180 1026 -0.2 -6 1615 5.3 162 2239 -0.6 -18	26 Sa	0432 4.8 146 1108 0.6 18 1655 4.2 128 2256 0.1 3
12 M	0252 4.9 149 0902 0.8 24 1511 5.9 180 2152 0.8 24	27 Tu	0419 5.1 155 1041 0.9 27 1639 5.4 165 2256 0.7 21	12 Th	0422 6.0 183 1041 -0.1 -3 1637 6.0 183 2303 -0.4 -12	27 F	0511 5.2 158 1138 0.7 21 1729 4.8 146 2331 0.3 9	12 Sa	0458 6.3 192 1123 -0.5 -15 1713 5.3 162 2331 -0.8 -24	27 Su	0516 5.0 152 1150 0.4 12 1739 4.3 131 2339 0.0 0
13 Tu	0349 5.4 165 1003 0.4 12 1608 6.1 186 2242 0.3 9	28 W	0505 5.3 162 1125 0.8 24 1723 5.4 165 2332 0.5 15	13 F	0516 6.5 198 1137 -0.4 -12 1732 6.1 186 2352 -0.6 -18	28 Sa	0549 5.4 165 1217 0.5 15 1810 4.8 146	13 Su	0552 6.6 201 1218 -0.7 -21 1808 5.4 165	28 M	0557 5.3 162 1231 0.3 9 1820 4.4 134
14 W	0444 5.9 180 1059 0.0 0 1702 6.4 195 2331 -0.1 -3	29 Th	0545 5.5 168 1204 0.7 21 1802 5.4 165	14 Sa	0609 6.9 210 1231 -0.6 -18 1825 6.1 186	29 Su	0009 0.2 6 0625 5.6 171 1256 0.5 15 1847 4.8 146	14 M	0023 -0.9 -27 0644 6.8 207 1310 -0.7 -21 1900 5.3 162	29 Tu	0020 -0.2 -6 0636 5.4 165 1312 0.2 6 1859 4.4 134
15 Th	0537 6.4 195 1154 -0.3 -9 1754 6.6 201	30 F	0007 0.4 12 0621 5.6 171 1243 0.7 21 1840 5.4 165	15 Su	0042 -0.8 -24 0659 7.2 219 1325 -0.7 -21 1916 5.9 180	30 M	0047 0.1 3 0700 5.7 174 1335 0.4 12 1924 4.7 143	15 Tu	0114 -0.9 -27 0735 6.8 207 1402 -0.7 -21 1951 5.2 158	30 W	0102 -0.3 -9 0714 5.5 168 1352 0.1 3 1938 4.4 134
		31 Sa	0042 0.4 12 0654 5.7 174 1320 0.6 18 1915 5.3 162						31 Th	0145 -0.3 -9 0753 5.6 171 1432 0.1 3 2018 4.4 134	

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Charleston, South Carolina, 2020

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm
1 W	0547 0.8 24 1212 4.8 146 1827 0.6 18	16 Th	0001 5.2 158 0612 -0.3 -9 1217 5.4 165 1841 -0.4 -12	1 Sa	0028 4.6 140 0645 0.9 27 1253 4.2 128 1903 0.4 12	16 Su	0146 5.4 165 0803 0.1 3 1356 4.6 140 2013 -0.1 -3	1 Su	0606 0.8 24 1206 4.2 128 1817 0.5 15	16 M	0122 5.5 168 0741 0.3 9 1336 4.6 140 1949 0.3 9
2 Th	0031 4.4 134 0639 1.0 30 1259 4.6 140 1912 0.6 18	17 F	0104 5.3 162 0715 -0.1 -3 1316 5.1 155 1939 -0.3 -9	2 Su	0120 4.6 140 0744 1.0 30 1347 4.1 125 1955 0.4 12	17 M	0251 5.4 165 0907 0.2 6 1459 4.5 137 2116 0.0 0	2 M	0028 4.9 149 0702 0.9 27 1258 4.1 125 1910 0.5 15	17 Tu	0226 5.3 162 0844 0.5 15 1439 4.5 137 2054 0.5 15
3 F	0123 4.5 137 0735 1.1 34 1350 4.4 134 2000 0.6 18	18 Sa	0208 5.3 162 0821 0.0 0 1417 4.8 146 2038 -0.3 -9	3 M	0217 4.7 143 0848 0.9 27 1445 4.1 125 2053 0.3 9	18 Tu	0355 5.4 165 1009 0.2 6 1602 4.4 134 2218 0.0 0	3 Tu	0126 4.9 149 0805 0.9 27 1400 4.1 125 2012 0.4 12	18 W	0330 5.2 158 0945 0.5 15 1541 4.5 137 2157 0.5 15
4 Sa	0218 4.6 140 0836 1.1 34 1442 4.3 131 2050 0.5 15	19 Su	0312 5.4 165 0927 0.1 3 1519 4.7 143 2138 -0.3 -9	4 Tu	0317 4.9 149 0951 0.7 21 1545 4.2 128 2152 0.1 3	19 W	0454 5.4 165 1106 0.2 6 1700 4.5 137 2314 -0.1 -3	4 W	0232 5.1 155 0912 0.8 24 1506 4.2 128 2118 0.2 6	19 Th	0428 5.2 158 1040 0.4 12 1639 4.6 140 2254 0.4 12
5 Su	0312 4.8 146 0936 0.9 27 1536 4.3 131 2141 0.3 9	20 M	0414 5.6 171 1029 0.0 0 1619 4.6 140 2236 -0.3 -9	5 W	0417 5.2 158 1050 0.4 12 1643 4.3 131 2250 -0.2 -6	20 Th	0547 5.5 168 1157 0.0 0 1752 4.7 143	5 Th	0339 5.3 162 1016 0.5 15 1611 4.5 137 2222 -0.1 -3	20 F	0521 5.3 162 1129 0.3 9 1730 4.8 146 2345 0.2 6
6 M	0405 5.1 155 1032 0.7 21 1628 4.4 134 2231 0.1 3	21 Tu	0511 5.7 174 1125 -0.1 -3 1716 4.7 143 2330 -0.4 -12	6 Th	0514 5.6 171 1144 0.1 3 1738 4.6 140 2345 -0.6 -18	21 F	0005 -0.2 -6 0634 5.5 168 1243 -0.1 -3 1839 4.8 146	6 F	0443 5.6 171 1114 0.1 3 1712 4.9 149 2323 -0.5 -15	21 Sa	0607 5.4 165 1214 0.2 6 1815 5.0 152
7 Tu	0456 5.4 165 1124 0.4 12 1719 4.5 137 2321 -0.2 -6	22 W	0604 5.8 177 1217 -0.2 -6 1809 4.7 143	7 F	0608 5.9 180 1234 -0.2 -6 1831 4.9 149	22 Sa	0051 -0.2 -6 0717 5.6 171 1325 -0.1 -3 1921 4.9 149	7 Sa	0542 6.0 183 1207 -0.3 -9 1808 5.3 162	22 Su	0030 0.1 3 0648 5.4 165 1254 0.1 3 1857 5.2 158
8 W	0545 5.7 174 1213 0.2 6 1807 4.6 140	23 Th	0021 -0.5 -15 0653 5.8 177 1305 -0.3 -9 1857 4.8 146	8 Sa	0038 -0.9 -27 0659 6.2 189 1323 -0.5 -15 1921 5.2 158	23 Su	0134 -0.2 -6 0756 5.5 168 1403 -0.2 -6 2001 5.0 152	8 Su	0019 -0.9 -27 0636 6.2 189 1257 -0.6 -18 1901 5.7 174	23 M	0112 0.1 3 0727 5.4 165 1331 0.0 0 1935 5.4 165
9 Th	0010 -0.5 -15 0633 5.9 180 1300 -0.1 -3 1854 4.8 146	24 F	0108 -0.5 -15 0738 5.8 177 1350 -0.3 -9 1941 4.8 146	9 Su	0129 -1.2 -37 0749 6.3 192 1410 -0.8 -24 2012 5.4 165	24 M	0213 -0.2 -6 0832 5.5 168 1439 -0.1 -3 2038 5.0 152	9 M	0113 -1.2 -37 0727 6.4 195 1345 -0.9 -27 1953 6.0 183	24 Tu	0151 0.0 0 0803 5.3 162 1405 0.0 0 2011 5.5 168
10 F	0058 -0.7 -21 0720 6.2 189 1346 -0.3 -9 1941 4.9 149	25 Sa	0152 -0.4 -12 0819 5.7 174 1431 -0.2 -6 2023 4.8 146	10 M	0220 -1.3 -40 0837 6.4 195 1457 -0.9 -27 2102 5.6 171	25 Tu	0250 -0.1 -3 0907 5.3 162 1513 -0.1 -3 2113 5.0 152	10 Tu	0206 -1.3 -40 0817 6.4 195 1432 -1.1 -34 2044 6.2 189	25 W	0228 0.1 3 0838 5.2 158 1438 0.0 0 2045 5.5 168
11 Sa	0146 -0.9 -27 0806 6.3 192 1432 -0.5 -15 2028 5.0 152	26 Su	0233 -0.3 -9 0858 5.6 171 1511 -0.1 -3 2103 4.8 146	11 Tu	0312 -1.3 -40 0925 6.3 192 1544 -0.9 -27 2153 5.7 174	26 W	0326 0.1 3 0940 5.1 155 1546 0.0 0 2147 5.0 152	11 W	0258 -1.3 -40 0905 6.2 189 1519 -1.1 -34 2135 6.3 192	26 Th	0303 0.2 6 0911 5.0 152 1510 0.1 3 2117 5.5 168
12 Su	0234 -1.0 -30 0853 6.3 192 1519 -0.5 -15 2117 5.1 155	27 M	0313 -0.1 -3 0936 5.4 165 1548 0.0 0 2141 4.7 143	12 W	0405 -1.1 -34 1014 6.0 183 1632 -0.9 -27 2247 5.7 174	27 Th	0402 0.3 9 1013 4.9 149 1618 0.2 6 2221 5.0 152	12 Th	0351 -1.1 -34 0954 5.9 180 1607 -0.9 -27 2228 6.3 192	27 F	0339 0.3 9 0943 4.8 146 1543 0.2 6 2149 5.4 165
13 M	0325 -1.0 -30 0941 6.2 189 1606 -0.6 -18 2208 5.2 158	28 Tu	0351 0.1 3 1012 5.2 158 1624 0.1 3 2220 4.6 140	13 Th	0459 -0.8 -24 1104 5.6 171 1722 -0.7 -21 2343 5.6 171	28 F	0439 0.5 15 1046 4.6 140 1653 0.3 9 2258 4.9 149	13 F	0444 -0.8 -24 1045 5.6 171 1657 -0.6 -18 2322 6.1 186	28 Sa	0415 0.5 15 1015 4.6 140 1617 0.3 9 2223 5.4 165
14 Tu	0417 -0.8 -24 1031 6.0 183 1655 -0.5 -15 2303 5.2 158	29 W	0429 0.3 9 1048 4.9 149 1659 0.2 6 2259 4.6 140	14 F	0557 -0.5 -15 1157 5.3 162 1815 -0.5 -15	29 Sa	0520 0.6 18 1123 4.4 134 1731 0.4 12 2339 4.9 149	14 Sa	0540 -0.4 -12 1138 5.2 158 1749 -0.3 -9	29 Su	0455 0.6 18 1050 4.5 137 1657 0.4 12 2303 5.3 162
15 W	0512 -0.6 -18 1123 5.7 174 1747 -0.5 -15	30 Th	0510 0.5 15 1126 4.7 143 1736 0.3 9 2341 4.6 140	15 Sa	0043 5.5 168 0658 -0.1 -3 1255 4.9 149 1912 -0.3 -9	15 Su	0020 5.8 177 0639 0.0 0 1234 4.8 146 1846 0.0 0	15 Su	0020 5.8 177 0639 0.0 0 1234 4.8 146 1846 0.0 0	30 M	0540 0.7 21 1132 4.4 134 1743 0.5 15 2351 5.3 162
		31 F	0554 0.7 21 1207 4.4 134 1817 0.4 12							31 Tu	0633 0.8 24 1225 4.3 131 1838 0.6 18

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Charleston, South Carolina, 2020

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	h m	ft	h m	ft	h m	ft	h m	ft	h m	ft
1 Th 0112 0.5 15 0716 5.9 180 1332 0.6 18 1942 5.9 180		16 F 0049 -0.4 -12 0702 6.9 210 1320 -0.5 -15 1920 6.6 201		1 Su 0148 0.4 12 0801 6.1 186 1424 0.7 21 2024 5.3 162		16 M 0202 -0.8 -24 0829 7.1 216 1449 -0.5 -15 2041 5.8 177		1 Tu 0154 0.1 3 0812 6.0 183 1439 0.5 15 2034 4.8 146		16 W 0234 -0.8 -24 0905 6.6 201 1522 -0.5 -15 2114 5.2 158	
2 F 0149 0.5 15 0754 5.9 180 1411 0.7 21 2018 5.8 177		17 Sa 0137 -0.6 -18 0754 7.1 216 1413 -0.6 -18 2010 6.5 198		2 M 0222 0.5 15 0835 6.0 183 1501 0.8 24 2058 5.1 155		17 Tu 0252 -0.6 -18 0922 7.0 213 1542 -0.3 -9 2134 5.6 171		2 W 0232 0.2 6 0848 5.9 180 1517 0.5 15 2110 4.7 143		17 Th 0324 -0.5 -15 0955 6.3 192 1612 -0.2 -6 2205 5.0 152	
3 Sa 0223 0.5 15 0830 5.9 180 1448 0.8 24 2053 5.6 171		18 Su 0225 -0.6 -18 0847 7.2 219 1506 -0.4 -12 2101 6.3 192		3 Tu 0257 0.6 18 0909 6.0 183 1538 0.9 27 2132 4.9 149		18 W 0344 -0.3 -9 1016 6.7 204 1635 0.0 0 2228 5.3 162		3 Th 0311 0.2 6 0925 5.8 177 1557 0.6 18 2148 4.6 140		18 F 0414 -0.2 -6 1045 5.9 180 1701 0.0 0 2257 4.9 149	
4 Su 0256 0.6 18 0904 5.9 180 1525 1.0 30 2127 5.3 162		19 M 0315 -0.5 -15 0941 7.1 216 1600 -0.2 -6 2154 5.9 180		4 W 0333 0.7 21 0944 5.9 180 1617 1.1 34 2208 4.8 146		19 Th 0437 0.0 0 1111 6.3 192 1729 0.3 9 2324 5.1 155		4 F 0353 0.3 9 1005 5.8 177 1641 0.6 18 2230 4.6 140		19 Sa 0506 0.2 6 1135 5.6 171 1751 0.3 9 2350 4.7 143	
5 M 0329 0.7 21 0938 5.8 177 1602 1.1 34 2201 5.1 155		20 Tu 0405 -0.2 -6 1036 6.9 210 1655 0.1 3 2249 5.6 171		5 Th 0413 0.8 24 1024 5.8 177 1701 1.2 37 2249 4.7 143		20 F 0532 0.4 12 1208 5.9 180 1825 0.6 18		5 Sa 0440 0.4 12 1051 5.7 174 1728 0.6 18 2320 4.6 140		20 Su 0559 0.5 15 1225 5.2 158 1840 0.4 12	
6 Tu 0404 0.9 27 1014 5.8 177 1642 1.3 40 2237 4.9 149		21 W 0459 0.1 3 1135 6.5 198 1753 0.5 15 2347 5.3 162		6 F 0459 0.9 27 1111 5.7 174 1750 1.2 37 2339 4.6 140		21 Sa 0023 4.9 149 0632 0.7 21 1306 5.6 171 1921 0.7 21		6 Su 0533 0.4 12 1143 5.6 171 1820 0.6 18		21 M 0044 4.6 140 0656 0.8 24 1316 4.9 149 1931 0.5 15	
7 W 0442 1.0 30 1054 5.7 174 1725 1.4 43 2318 4.8 146		22 Th 0557 0.5 15 1236 6.2 189 1852 0.8 24		7 Sa 0552 0.9 27 1206 5.7 174 1846 1.2 37		22 Su 0123 4.8 146 0734 0.9 27 1402 5.4 165 2016 0.8 24		7 M 0019 4.7 143 0633 0.5 15 1241 5.5 168 1917 0.4 12		22 Tu 0139 4.6 140 0755 1.0 30 1407 4.7 143 2020 0.6 18	
8 Th 0527 1.1 34 1141 5.6 171 1816 1.5 46		23 F 0049 5.1 155 0659 0.8 24 1338 6.0 183 1953 0.9 27		8 Su 0040 4.7 143 0653 0.9 27 1307 5.7 174 1946 1.0 30		23 M 0222 4.9 149 0836 1.0 30 1455 5.3 162 2108 0.7 21		8 Tu 0124 4.9 149 0739 0.4 12 1343 5.5 168 2015 0.2 6		23 W 0234 4.7 143 0854 1.0 30 1458 4.6 140 2109 0.5 15	
9 F 0008 4.7 143 0618 1.1 34 1236 5.6 171 1914 1.5 46		24 Sa 0152 5.1 155 0804 0.9 27 1439 5.8 177 2052 1.0 30		9 M 0146 4.9 149 0759 0.8 24 1412 5.8 177 2046 0.7 21		24 Tu 0317 5.0 152 0935 1.0 30 1545 5.2 158 2157 0.6 18		9 W 0231 5.2 158 0847 0.3 9 1445 5.5 168 2114 -0.1 -3		24 Th 0327 4.9 149 0951 1.0 30 1549 4.5 137 2156 0.4 12	
10 Sa 0108 4.7 143 0718 1.1 34 1339 5.7 174 2017 1.4 43		25 Su 0253 5.1 155 0907 1.0 30 1534 5.8 177 2146 0.9 27		10 Tu 0253 5.2 158 0907 0.5 15 1514 5.9 180 2144 0.4 12		25 W 0408 5.2 158 1028 0.9 27 1632 5.1 155 2241 0.5 15		10 Th 0335 5.6 171 0953 0.1 3 1547 5.5 168 2211 -0.4 -12		25 F 0417 5.1 155 1043 0.8 24 1638 4.5 137 2242 0.3 9	
11 Su 0212 4.8 146 0823 0.9 27 1443 5.9 180 2118 1.1 34		26 M 0350 5.2 158 1005 1.0 30 1625 5.7 174 2235 0.8 24		11 W 0355 5.7 174 1011 0.2 6 1614 6.0 183 2239 0.0 0		26 Th 0455 5.5 168 1117 0.8 24 1717 5.1 155 2322 0.3 9		11 F 0435 6.1 186 1055 -0.2 -6 1646 5.5 168 2307 -0.6 -18		26 Sa 0505 5.3 162 1131 0.6 18 1725 4.6 140 2326 0.1 3	
12 M 0317 5.1 155 0929 0.6 18 1545 6.1 186 2216 0.7 21		27 Tu 0441 5.4 165 1057 0.9 27 1711 5.7 174 2319 0.6 18		12 Th 0454 6.2 189 1112 -0.1 -3 1710 6.2 189 2332 -0.4 -12		27 F 0539 5.7 174 1201 0.7 21 1759 5.1 155		12 Sa 0533 6.5 198 1153 -0.5 -15 1743 5.5 168		27 Su 0550 5.5 168 1215 0.5 15 1811 4.6 140	
13 Tu 0418 5.5 168 1031 0.3 9 1643 6.4 195 2309 0.3 9		28 W 0527 5.7 174 1144 0.8 24 1753 5.7 174		13 F 0550 6.6 201 1209 -0.4 -12 1804 6.2 189		28 Sa 0002 0.2 6 0620 5.8 177 1243 0.6 18 1840 5.1 155		13 Su 0000 -0.8 -24 0628 6.7 204 1249 -0.6 -18 1838 5.5 168		28 M 0008 0.0 0 0632 5.6 171 1257 0.3 9 1854 4.6 140	
14 W 0515 6.0 183 1130 -0.1 -3 1737 6.6 201		29 Th 0000 0.5 15 0609 5.9 180 1228 0.7 21 1832 5.7 174		14 Sa 0022 -0.6 -18 0643 7.0 213 1304 -0.6 -18 1857 6.2 189		29 Su 0040 0.2 6 0659 5.9 180 1323 0.5 15 1920 5.0 152		14 M 0052 -0.9 -27 0721 6.8 207 1341 -0.7 -21 1931 5.5 168		29 Tu 0050 -0.2 -6 0713 5.8 177 1337 0.2 6 1934 4.6 140	
15 Th 0000 -0.1 -3 0609 6.5 198 1225 -0.4 -12 1829 6.7 204		30 F 0038 0.4 12 0648 6.0 183 1308 0.7 21 1911 5.6 171		15 Su 0112 -0.8 -24 0736 7.2 219 1357 -0.6 -18 1949 6.0 183		30 M 0117 0.1 3 0736 6.0 183 1401 0.5 15 1958 4.9 149		15 Tu 0143 -0.9 -27 0814 6.8 207 1432 -0.6 -18 2023 5.4 165		30 W 0131 -0.2 -6 0753 5.8 177 1417 0.1 3 2014 4.7 143	
		31 Sa 0113 0.4 12 0726 6.1 186 1347 0.7 21 1948 5.5 168						31 Th 0212 -0.3 -9 0831 5.8 177 1457 0.1 3 2052 4.7 143			

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Savannah River Entrance, Georgia, 2020

Times and Heights of High and Low Waters

July				August				September																					
Time		Height		Time		Height		Time		Height		Time		Height															
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm															
1 W	0406	6.9	210		16 Th	0415	5.9	180		1 Sa	0006	0.2	6		16 Su	0522	6.4	195											
	1036	-0.5	-15			1028	0.5	15			0544	6.7	204			0121	0.4	12		17 W	0045	0.1	3						
	1652	8.0	244			1641	7.2	219			1209	-0.1	-3			0706	7.1	216			0640	7.8	238						
	2327	-0.1	-3			2315	1.1	34			1828	8.0	244			1330	0.4	12			1305	-0.4	-12						
													1940	7.8	238		1904	8.8	268										
2 Th	0505	6.9	210		17 F	0506	6.0	183		2 Su	0058	0.1	3		17 M	0024	0.6	18		2 W	0203	0.4	12		17 Th	0135	-0.3	-9	
	1132	-0.6	-18			1118	0.3	9			0637	6.8	207			0614	6.7	204			0749	7.2	219			0731	8.2	250	
	1749	8.2	250			1731	7.4	226			1301	-0.1	-3			1233	-0.1	-3			1413	0.5	15			1358	-0.6	-18	
											1918	8.0	244			1840	8.2	250			2019	7.7	235			1953	8.8	268	
3 F	0023	-0.3	-9		18 Sa	0005	0.8	24		3 M	0146	0.0	0		18 Tu	0114	0.2	6		3 Th	0242	0.4	12		18 F	0223	-0.6	-18	
	0601	6.8	207			0556	6.1	186			0727	6.8	207			0704	7.1	216			0830	7.3	223			0821	8.5	259	
	1225	-0.6	-18			1208	0.1	3			1349	0.0	0			1325	-0.4	-12			1453	0.7	21			1450	-0.7	-21	
	1843	8.2	250			1819	7.7	235			2003	7.9	241			1928	8.5	259			2057	7.5	229			2042	8.7	265	

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Fernandina Beach, Amelia River, Florida, 2020

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm
1 Th	0152 0.6 18 0812 6.7 204 1412 0.7 21 2036 6.7 204	16 F	0126 -0.4 -12 0757 7.9 241 1358 -0.5 -15 2019 7.6 232	1 Su	0231 0.6 18 0900 7.0 213 1505 0.8 24 2119 6.2 189	16 M	0240 -0.9 -27 0924 8.2 250 1526 -0.5 -15 2142 7.0 213	1 Tu	0237 0.3 9 0913 6.9 210 1518 0.5 15 2132 5.8 177	16 W	0311 -0.9 -27 1000 7.6 232 1558 -0.5 -15 2214 6.3 192
2 F	0229 0.6 18 0851 6.8 207 1451 0.8 24 2113 6.6 201	17 Sa	0214 -0.6 -18 0849 8.2 250 1450 -0.5 -15 2110 7.6 232	2 M	0305 0.6 18 0937 7.0 213 1541 0.9 27 2157 6.0 183	17 Tu	0329 -0.7 -21 1017 8.1 247 1616 -0.3 -9 2234 6.7 204	2 W	0313 0.3 9 0952 6.8 207 1555 0.6 18 2211 5.6 171	17 Th	0400 -0.6 -18 1049 7.3 223 1646 -0.2 -6 2304 6.1 186
3 Sa	0303 0.6 18 0929 6.8 207 1529 0.9 27 2149 6.4 195	18 Su	0302 -0.7 -21 0942 8.2 250 1534 -0.4 -12 2202 7.3 223	3 Tu	0338 0.7 21 1014 6.9 210 1617 1.0 30 2235 5.9 180	18 W	0419 -0.4 -12 1110 7.8 238 1709 0.1 3 2327 6.4 195	3 Th	0351 0.3 9 1032 6.8 207 1634 0.6 18 2252 5.5 168	18 F	0449 -0.2 -6 1138 6.9 210 1736 0.1 3 2354 5.8 177
4 Su	0337 0.7 21 1005 6.8 207 1605 1.0 30 2225 6.2 189	19 M	0351 -0.6 -18 1036 8.2 250 1634 -0.2 -6 2254 7.1 216	4 W	0413 0.8 24 1053 6.8 207 1656 1.2 37 2314 5.7 174	19 Th	0511 0.1 3 1203 7.4 226 1804 0.4 12	4 F	0431 0.4 12 1114 6.7 204 1716 0.7 21 2335 5.5 168	19 Sa	0541 0.3 9 1225 6.5 198 1827 0.4 12
5 M	0410 0.9 27 1042 6.7 204 1643 1.2 37 2303 6.0 183	20 Tu	0441 -0.3 -9 1130 7.9 241 1729 0.2 6 2347 6.8 207	5 Th	0452 1.0 30 1134 6.7 204 1739 1.3 40 2356 5.6 171	20 F	0019 6.2 189 0608 0.5 15 1255 7.0 213 1901 0.7 21	5 Sa	0516 0.5 15 1158 6.6 201 1804 0.7 21	20 Su	0043 5.6 171 0637 0.7 21 1312 6.1 186 1920 0.6 18
6 Tu	0444 1.0 30 1121 6.6 201 1723 1.4 43 2341 5.8 177	21 W	0534 0.1 3 1225 7.6 232 1828 0.6 18	6 F	0537 1.1 34 1219 6.6 201 1830 1.4 43	21 Sa	0114 5.9 180 0709 0.9 27 1349 6.6 201 2000 0.9 27	6 Su	0022 5.5 168 0610 0.6 18 1247 6.5 198 1858 0.7 21	21 M	0133 5.5 168 0736 1.0 30 1400 5.7 174 2011 0.7 21
7 W	0522 1.2 37 1202 6.5 198 1808 1.6 49	22 Th	0042 6.4 195 0633 0.6 18 1322 7.3 223 1929 0.9 27	7 Sa	0043 5.6 171 0631 1.1 34 1310 6.6 201 1926 1.3 40	22 Su	0210 5.8 177 0812 1.2 37 1444 6.2 189 2055 0.9 27	7 M	0115 5.6 171 0713 0.7 21 1340 6.4 195 1955 0.5 15	22 Tu	0226 5.5 168 0836 1.2 37 1450 5.4 165 2101 0.7 21
8 Th	0023 5.7 174 0607 1.3 40 1247 6.5 198 1901 1.7 52	23 F	0139 6.2 189 0736 0.9 27 1421 6.9 210 2031 1.0 30	8 Su	0136 5.6 171 0734 1.1 34 1406 6.6 201 2025 1.1 34	23 M	0308 5.8 177 0914 1.3 40 1539 6.0 183 2146 0.9 27	8 Tu	0214 5.8 177 0820 0.6 18 1439 6.3 192 2053 0.3 9	23 W	0321 5.5 168 0934 1.2 37 1543 5.3 162 2149 0.6 18
9 F	0109 5.6 171 0702 1.3 40 1339 6.5 198 1959 1.7 52	24 Sa	0239 6.0 183 0840 1.1 34 1521 6.7 204 2129 1.1 34	9 M	0236 5.8 177 0841 1.0 30 1508 6.6 201 2124 0.8 24	24 Tu	0406 5.9 180 1011 1.3 40 1632 5.9 180 2234 0.8 24	9 W	0319 6.1 186 0926 0.5 15 1542 6.3 192 2151 0.0 0	24 Th	0416 5.7 174 1028 1.1 34 1636 5.2 158 2236 0.5 15
10 Sa	0202 5.6 171 0803 1.3 40 1437 6.5 198 2058 1.5 46	25 Su	0340 6.0 183 0942 1.2 37 1620 6.6 201 2223 1.0 30	10 Tu	0342 6.1 186 0946 0.7 21 1611 6.7 204 2220 0.5 15	25 W	0459 6.1 186 1104 1.2 37 1722 5.9 180 2319 0.7 21	10 Th	0425 6.5 198 1030 0.2 6 1646 6.3 192 2247 -0.3 -9	25 F	0509 5.9 180 1119 0.9 27 1727 5.2 158 2322 0.4 12
11 Su	0303 5.7 174 0906 1.1 34 1540 6.7 204 2155 1.2 37	26 M	0440 6.1 186 1039 1.2 37 1713 6.5 198 2311 0.9 27	11 W	0447 6.6 201 1049 0.4 12 1713 6.9 210 2314 0.1 3	26 Th	0548 6.3 192 1154 1.0 30 1808 5.9 180	11 F	0528 7.0 213 1131 -0.1 -3 1746 6.4 195 2343 -0.6 -18	26 Sa	0558 6.1 186 1208 0.7 21 1816 5.3 162
12 M	0408 6.0 183 1009 0.8 24 1643 6.9 210 2251 0.8 24	27 Tu	0533 6.3 192 1133 1.1 34 1801 6.5 198 2357 0.8 24	12 Th	0547 7.1 216 1149 0.1 3 1810 7.1 216	27 F	0002 0.5 15 0632 6.6 201 1240 0.9 27 1851 5.9 180	12 Sa	0627 7.4 226 1230 -0.4 -12 1843 6.5 198	27 Su	0007 0.3 9 0644 6.4 195 1254 0.5 15 1901 5.4 165
13 Tu	0511 6.4 195 1109 0.5 15 1742 7.2 219 2344 0.4 12	28 W	0621 6.6 201 1222 1.0 30 1844 6.5 198	13 F	0008 -0.3 -9 0644 7.6 232 1247 -0.3 -9 1904 7.2 219	28 Sa	0043 0.4 12 0714 6.8 207 1323 0.7 21 1932 5.9 180	13 Su	0037 -0.9 -27 0722 7.7 235 1326 -0.6 -18 1938 6.5 198	28 M	0051 0.1 3 0728 6.5 198 1336 0.3 9 1945 5.5 168
14 W	0609 6.9 210 1208 0.1 3 1836 7.5 229	29 Th	0039 0.7 21 0704 6.8 207 1307 0.9 27 1925 6.5 198	14 Sa	0100 -0.6 -18 0738 8.0 244 1342 -0.5 -15 1957 7.2 219	29 Su	0122 0.3 9 0754 6.9 210 1403 0.6 18 2013 5.9 180	14 M	0130 -1.0 -30 0816 7.8 238 1419 -0.7 -21 2031 6.5 198	29 Tu	0133 -0.1 -3 0810 6.7 204 1416 0.2 6 2028 5.5 168
15 Th	0036 0.0 0 0704 7.5 229 1304 -0.2 -6 1928 7.6 232	30 F	0118 0.6 18 0744 6.9 210 1349 0.8 24 2004 6.4 195	15 Su	0151 -0.8 -24 0831 8.2 250 1434 -0.6 -18 2049 7.1 216	30 M	0200 0.3 9 0834 6.9 210 1441 0.5 15 2053 5.9 180	15 Tu	0221 -1.0 -30 0908 7.8 238 1509 -0.7 -21 2123 6.4 195	30 W	0213 -0.2 -6 0852 6.7 204 1455 0.1 3 2109 5.6 171
		31 Sa	0155 0.5 15 0822 7.0 213 1428 0.8 24 2042 6.3 192							31 Th	0253 -0.3 -9 0933 6.8 207 1534 0.0 0 2151 5.6 171

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Mayport, Florida, 2020

Times and Heights of High and Low Waters

April				May				June			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m ft cm	h m ft cm	h m ft cm	h m ft cm	h m ft cm	h m ft cm	h m ft cm	h m ft cm	h m ft cm	h m ft cm	h m ft cm	h m ft cm
1 W 0143 4.3 131 0805 0.7 21 1418 3.7 113 2009 0.5 15		16 Th 0344 4.4 134 0943 0.5 15 1608 4.0 122 2158 0.7 21		1 F 0226 4.6 140 0842 0.4 12 1507 4.1 125 2058 0.3 9		16 Sa 0356 4.1 125 0955 0.4 12 1625 4.1 125 2220 0.7 21		1 M 0410 4.5 137 1008 -0.4 -12 1654 4.9 149 2250 -0.2 -6		16 Tu 0445 3.7 113 1037 0.2 6 1718 4.3 131 2323 0.6 18	
2 Th 0251 4.4 134 0909 0.6 18 1528 3.8 116 2117 0.3 9		17 F 0441 4.3 131 1035 0.5 15 1703 4.1 125 2254 0.6 18		2 Sa 0333 4.6 140 0940 0.2 6 1613 4.4 134 2204 0.1 3		17 Su 0447 4.1 125 1041 0.4 12 1714 4.3 131 2311 0.6 18		2 Tu 0510 4.5 137 1102 -0.6 -18 1751 -5.2 158 2349 -0.3 -9		17 W 0533 3.7 113 1120 0.1 3 1803 4.5 137	
3 F 0402 4.5 137 1009 0.3 9 1635 4.1 125 2223 0.1 3		18 Sa 0532 4.4 134 1122 0.4 12 1752 4.3 131 2344 0.5 15		3 Su 0437 4.8 146 1036 -0.1 -3 1714 4.8 146 2307 -0.2 -6		18 M 0534 4.1 125 1124 0.3 9 1759 4.5 137 2359 0.5 15		3 W 0607 4.6 140 1155 -0.7 -21 1845 5.5 168		18 Th 0010 0.4 12 0619 3.8 116 1201 0.0 0 1847 4.7 143	
4 Sa 0506 4.8 146 1106 0.0 0 1736 4.5 137 2325 -0.3 -9		19 Su 0617 4.4 134 1206 0.3 9 1835 4.5 137		4 M 0535 4.9 149 1130 -0.4 -12 1810 5.2 158		19 Tu 0617 4.1 125 1204 0.2 6 1840 4.7 143		4 Th 0045 -0.5 -15 0701 4.6 140 1246 -0.8 -24 1938 5.6 171		19 F 0054 0.3 9 0705 3.8 116 1242 -0.1 -3 1929 4.8 146	
5 Su 0603 5.0 152 1200 -0.3 -9 1831 4.9 149		20 M 0030 0.4 12 0658 4.4 134 1246 0.2 6 1915 4.7 143		5 Tu 0006 -0.4 -12 0630 5.0 152 1221 -0.6 -18 1903 5.6 171		20 W 0043 0.4 12 0659 4.1 125 1242 0.1 3 1920 4.8 146		5 F 0138 -0.6 -18 0755 4.5 137 1336 -0.8 -24 2030 5.6 171		20 Sa 0136 0.2 6 0750 3.8 116 1323 -0.2 -6 2012 4.9 149	
6 M 0023 -0.6 -18 0656 5.2 158 1250 -0.6 -18 1924 5.3 162		21 Tu 0113 0.3 9 0736 4.4 134 1322 0.1 3 1952 4.8 146		6 W 0101 -0.6 -18 0723 5.0 152 1311 -0.8 -24 1955 5.8 177		21 Th 0125 0.3 9 0739 4.1 125 1318 0.0 0 1959 4.9 149		6 Sa 0229 -0.6 -18 0847 4.5 137 1425 -0.7 -21 2120 5.5 168		21 Su 0217 0.0 0 0834 3.9 119 1403 -0.2 -6 2055 5.0 152	
7 Tu 0118 -0.8 -24 0748 5.4 165 1338 -0.8 -24 2015 5.6 171		22 W 0152 0.2 6 0814 4.4 134 1355 0.1 3 2029 4.9 149		7 Th 0154 -0.7 -21 0815 5.0 152 1359 -0.8 -24 2047 5.9 180		22 F 0203 0.2 6 0820 4.1 125 1353 0.0 0 2037 4.9 149		7 Su 0319 -0.5 -15 0939 4.4 134 1514 -0.4 -12 2209 5.3 162		22 M 0257 0.0 0 0920 3.9 119 1445 -0.2 -6 2139 5.0 152	
8 W 0210 -0.9 -27 0838 5.4 165 1424 -0.9 -27 2106 5.8 177		23 Th 0228 0.2 6 0850 4.3 131 1427 0.1 3 2104 4.9 149		8 F 0246 -0.7 -21 0906 4.9 149 1447 -0.7 -21 2138 5.8 177		23 Sa 0241 0.2 6 0900 4.0 122 1428 0.0 0 2116 5.0 152		8 M 0409 -0.3 -9 1029 4.2 128 1604 -0.2 -6 2257 5.1 155		23 Tu 0339 -0.1 -3 1006 3.9 119 1530 -0.2 -6 2224 5.0 152	
9 Th 0301 -0.9 -27 0927 5.2 158 1511 -0.9 -27 2157 5.8 177		24 F 0303 0.2 6 0926 4.2 128 1457 0.1 3 2139 4.9 149		9 Sa 0337 -0.6 -18 0958 4.7 143 1535 -0.5 -15 2228 5.6 171		24 Su 0318 0.2 6 0941 3.9 119 1505 0.0 0 2156 4.9 149		9 Tu 0500 -0.1 -3 1119 4.1 125 1656 0.1 3 2345 4.8 146		24 W 0423 -0.1 -3 1053 4.0 122 1620 -0.1 -3 2310 4.9 149	
10 F 0353 -0.7 -21 1018 5.0 152 1559 -0.7 -21 2248 5.6 171		25 Sa 0338 0.3 9 1003 4.1 125 1530 0.2 6 2216 4.8 146		10 Su 0429 -0.3 -9 1049 4.5 137 1626 -0.2 -6 2319 5.3 162		25 M 0357 0.2 6 1023 3.9 119 1545 0.1 3 2238 4.9 149		10 W 0552 0.0 0 1209 4.0 122 1753 0.4 12		25 Th 0512 -0.1 -3 1142 4.1 125 1716 0.0 0 2359 4.8 146	
11 Sa 0448 -0.4 -12 1109 4.7 143 1650 -0.3 -9 2341 5.4 165		26 Su 0415 0.4 12 1041 4.0 122 1606 0.3 9 2254 4.8 146		11 M 0524 -0.1 -3 1141 4.3 131 1722 0.2 6		26 Tu 0440 0.2 6 1108 3.9 119 1632 0.2 6 2323 4.8 146		11 Th 0033 4.5 137 0645 0.2 6 1259 3.9 119 1853 0.6 18		26 F 0604 -0.2 -6 1235 4.2 128 1818 0.0 0	
12 Su 0545 -0.1 -3 1202 4.5 137 1747 0.0 0		27 M 0456 0.5 15 1122 3.9 119 1649 0.4 12 2337 4.7 143		12 Tu 0012 5.0 152 0622 0.2 6 1236 4.1 125 1823 0.5 15		27 W 0529 0.3 9 1156 3.9 119 1726 0.3 9		12 F 0121 4.2 128 0736 0.3 9 1352 3.9 119 1952 0.7 21		27 Sa 0050 4.7 143 0659 -0.2 -6 1332 4.3 131 1925 0.1 3	
13 M 0036 5.0 152 0646 0.2 6 1258 4.2 128 1849 0.3 9		28 Tu 0545 0.6 18 1207 3.8 116 1741 0.5 15		13 W 0106 4.7 143 0720 0.3 9 1333 4.0 122 1927 0.7 21		28 Th 0012 4.7 143 0624 0.2 6 1248 3.9 119 1829 0.3 9		13 Sa 0211 4.0 122 0824 0.3 9 1446 3.9 119 2048 0.8 24		28 Su 0146 4.5 137 0755 -0.3 -9 1433 4.5 137 2030 0.1 3	
14 Tu 0136 4.7 143 0748 0.4 12 1400 4.0 122 1954 0.6 18		29 W 0026 4.6 140 0641 0.6 18 1300 3.8 116 1842 0.5 15		14 Th 0203 4.4 134 0815 0.4 12 1432 3.9 119 2028 0.8 24		29 F 0106 4.6 140 0721 0.1 3 1347 4.1 125 1936 0.3 9		14 Su 0303 3.9 119 0910 0.3 9 1540 4.0 122 2142 0.7 21		29 M 0246 4.4 134 0850 -0.4 -12 1536 4.7 143 2133 0.0 0	
15 W 0240 4.5 137 0847 0.5 15 1506 3.9 119 2058 0.7 21		30 Th 0122 4.6 140 0742 0.5 15 1400 3.9 119 1950 0.5 15		15 F 0301 4.2 128 0907 0.4 12 1531 4.0 122 2126 0.8 24		30 Sa 0205 4.6 140 0818 0.0 0 1450 4.3 131 2043 0.2 6		15 M 0355 3.8 116 0954 0.2 6 1630 4.2 128 2233 0.7 21		30 Tu 0348 4.3 131 0944 -0.5 -15 1638 4.9 149 2235 -0.1 -3	
						31 Su 0307 4.5 137 0914 -0.2 -6 1554 4.6 140 2148 0.0 0					

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Key West, Florida, 2020

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm
1 W	0113 1.5 46 0804 0.2 6 1429 1.1 34 2000 0.5 15	16 Th	0143 1.5 46 0750 0.0 0 1430 1.4 43 2025 0.1 3	1 Sa	0234 1.0 30 0811 0.3 9 1442 1.2 37 2134 0.1 3	16 Su	0416 0.8 24 0844 0.3 9 1535 1.5 46 2251 -0.2 -6	1 Su	0207 0.9 27 0707 0.4 12 1339 1.3 40 2042 0.0 0	16 M	0405 0.7 21 0807 0.4 12 1459 1.6 49 2229 -0.2 -6
2 Th	0209 1.3 40 0847 0.3 9 1514 1.2 37 2118 0.5 15	17 F	0256 1.2 37 0838 0.1 3 1522 1.5 46 2148 0.0 0	2 Su	0349 0.8 24 0853 0.4 12 1531 1.3 40 2247 0.0 0	17 M	0553 0.7 21 0946 0.4 12 1649 1.5 46	2 M	0318 0.8 24 0746 0.4 12 1427 1.3 40 2156 -0.1 -3	17 Tu	0540 0.7 21 0919 0.5 15 1622 1.5 46 2346 -0.1 -3
3 F	0316 1.2 37 0931 0.4 12 1559 1.3 40 2233 0.4 12	18 Sa	0424 1.0 30 0928 0.3 9 1619 1.6 49 2307 -0.1 -3	3 M	0523 0.7 21 0945 0.4 12 1628 1.3 40 2352 -0.1 -3	18 Tu	0007 -0.3 -9 0711 0.7 21 1054 0.4 12 1804 1.5 46	3 Tu	0454 0.7 21 0842 0.5 15 1531 1.3 40 2312 -0.1 -3	18 W	0653 0.8 24 1042 0.5 15 1749 1.5 46
4 Sa	0437 1.0 30 1014 0.4 12 1645 1.4 43 2337 0.2 6	19 Su	0556 0.9 27 1023 0.3 9 1719 1.6 49	4 Tu	0647 0.7 21 1044 0.4 12 1730 1.4 43	19 W	0111 -0.3 -9 0805 0.7 21 1201 0.3 9 1909 1.6 49	4 W	0625 0.7 21 0958 0.5 15 1650 1.4 43	19 Th	0049 -0.1 -3 0742 0.9 27 1156 0.4 12 1857 1.5 46
5 Su	0559 1.0 30 1058 0.5 15 1731 1.5 46	20 M	0019 -0.3 -9 0714 0.8 24 1119 0.3 9 1819 1.7 52	5 W	0049 -0.3 -9 0747 0.7 21 1142 0.4 12 1831 1.5 46	20 Th	0202 -0.3 -9 0847 0.8 24 1300 0.2 6 2002 1.6 49	5 Th	0018 -0.2 -6 0724 0.8 24 1114 0.5 15 1807 1.6 49	20 F	0136 -0.1 -3 0818 1.0 30 1256 0.3 9 1950 1.6 49
6 M	0031 0.0 0 0709 0.9 27 1140 0.5 15 1816 1.6 49	21 Tu	0119 -0.4 -12 0814 0.8 24 1214 0.3 9 1915 1.7 52	6 Th	0140 -0.4 -12 0834 0.8 24 1237 0.3 9 1928 1.7 52	21 F	0243 -0.3 -9 0920 0.9 27 1351 0.2 6 2046 1.7 52	6 F	0112 -0.3 -9 0807 0.9 27 1220 0.3 9 1913 1.7 52	21 Sa	0213 -0.1 -3 0848 1.1 34 1346 0.2 6 2033 1.6 49
7 Tu	0118 -0.2 -6 0804 0.9 27 1223 0.5 15 1902 1.7 52	22 W	0211 -0.4 -12 0901 0.8 24 1307 0.3 9 2006 1.8 55	7 F	0225 -0.5 -15 0914 0.9 27 1329 0.2 6 2021 1.8 55	22 Sa	0318 -0.3 -9 0950 1.0 30 1437 0.1 3 2124 1.7 52	7 Sa	0159 -0.4 -12 0844 1.0 30 1318 0.2 6 2011 1.9 58	22 Su	0245 0.0 0 0913 1.2 37 1430 0.1 3 2111 1.6 49
8 W	0202 -0.3 -9 0851 1.0 30 1305 0.4 12 1947 1.8 55	23 Th	0257 -0.5 -15 0941 0.8 24 1356 0.2 6 2051 1.8 55	8 Sa	0308 -0.6 -18 0951 0.9 27 1420 0.1 3 2112 1.9 58	23 Su	0350 -0.3 -9 1016 1.0 30 1519 0.1 3 2200 1.6 49	8 Su	0241 -0.4 -12 0918 1.1 34 1413 0.0 0 2105 1.9 58	23 M	0314 0.0 0 0936 1.3 40 1510 0.0 0 2146 1.6 49
9 Th	0244 -0.5 -15 0934 1.0 30 1347 0.3 9 2032 1.9 58	24 F	0337 -0.4 -12 1016 0.9 27 1442 0.2 6 2132 1.8 55	9 Su	0349 -0.6 -18 1027 1.0 30 1511 0.0 0 2201 2.0 61	24 M	0420 -0.2 -6 1041 1.1 34 1559 0.0 0 2234 1.6 49	9 M	0320 -0.4 -12 0951 1.3 40 1507 -0.2 -6 2157 1.9 58	24 Tu	0340 0.0 0 0958 1.4 43 1547 0.0 0 2220 1.5 46
10 F	0326 -0.6 -18 1015 1.0 30 1431 0.3 9 2118 2.0 61	25 Sa	0415 -0.4 -12 1048 0.9 27 1526 0.1 3 2210 1.8 55	10 M	0430 -0.5 -15 1103 1.1 34 1604 -0.1 -3 2252 1.9 58	25 Tu	0449 -0.1 -3 1106 1.2 37 1639 0.0 0 2310 1.5 46	10 Tu	0358 -0.3 -9 1025 1.5 46 1600 -0.3 -9 2248 1.8 55	25 W	0406 0.1 3 1022 1.5 46 1624 -0.1 -3 2256 1.4 43
11 Sa	0409 -0.6 -18 1055 1.0 30 1517 0.2 6 2205 2.0 61	26 Su	0451 -0.3 -9 1118 1.0 30 1609 0.1 3 2247 1.7 52	11 Tu	0509 -0.4 -12 1140 1.3 40 1659 -0.2 -6 2343 1.8 55	26 W	0516 0.0 0 1132 1.3 40 1719 0.0 0 2347 1.4 43	11 W	0434 -0.2 -6 1100 1.6 49 1655 -0.4 -12 2339 1.6 49	26 Th	0431 0.2 6 1047 1.5 46 1701 -0.2 -6 2334 1.3 40
12 Su	0452 -0.6 -18 1136 1.0 30 1606 0.2 6 2254 2.0 61	27 M	0525 -0.3 -9 1148 1.0 30 1652 0.2 6 2325 1.6 49	12 W	0548 -0.3 -9 1217 1.4 43 1758 -0.2 -6	27 Th	0542 0.1 3 1159 1.3 40 1801 0.0 0	12 Th	0511 0.0 0 1137 1.7 52 1751 -0.5 -15	27 F	0456 0.3 9 1114 1.6 49 1739 -0.2 -6
13 M	0536 -0.5 -15 1217 1.1 34 1700 0.1 3 2345 1.9 58	28 Tu	0559 -0.2 -6 1218 1.1 34 1737 0.2 6	13 Th	0038 1.5 46 0627 -0.1 -3 1257 1.5 46 1902 -0.2 -6	28 F	0027 1.2 37 0609 0.2 6 1228 1.3 40 1846 0.0 0	13 F	0033 1.4 43 0549 0.1 3 1216 1.8 55 1851 -0.4 -12	28 Sa	0014 1.2 37 0522 0.3 9 1142 1.5 46 1820 -0.2 -6
14 Tu	0620 -0.4 -12 1259 1.2 37 1800 0.1 3	29 W	0004 1.5 46 0631 0.0 0 1250 1.1 34 1826 0.2 6	14 F	0138 1.2 37 0708 0.0 0 1342 1.5 46 2013 -0.2 -6	29 Sa	0113 1.1 34 0636 0.3 9 1301 1.3 40 1939 0.0 0	14 Sa	0132 1.1 34 0629 0.2 6 1301 1.7 52 1956 -0.3 -9	29 Su	0100 1.1 34 0550 0.4 12 1214 1.5 46 1908 -0.2 -6
15 W	0041 1.7 52 0705 -0.2 -6 1343 1.3 40 1908 0.1 3	30 Th	0047 1.3 40 0703 0.1 3 1324 1.2 37 1920 0.2 6	15 Sa	0248 1.0 30 0752 0.2 6 1433 1.5 46 2130 -0.2 -6			15 Su	0240 0.9 27 0713 0.3 9 1353 1.7 52 2110 -0.2 -6	30 M	0154 0.9 27 0622 0.5 15 1252 1.5 46 2007 -0.1 -3
		31 F	0135 1.1 34 0736 0.2 6 1401 1.2 37 2023 0.2 6							31 Tu	0304 0.8 24 0704 0.6 18 1342 1.5 46 2118 -0.1 -3

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Key West, Florida, 2020

Times and Heights of High and Low Waters

April				May				June			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
<small>h m ft cm</small>		<small>h m ft cm</small>		<small>h m ft cm</small>		<small>h m ft cm</small>		<small>h m ft cm</small>		<small>h m ft cm</small>	
1 W O	0433 0.8 24 0806 0.6 18 1452 1.5 46 2234 -0.1 -3	16 Th	0617 0.9 27 1032 0.6 18 1720 1.4 43	1 F	0513 1.0 30 0925 0.6 18 1600 1.6 49 2301 0.0 0	16 Sa	0606 1.2 37 1128 0.5 15 1751 1.3 40 2357 0.3 9	1 M	0557 1.5 46 1157 0.1 3 1838 1.3 40 2354 0.2 6	16 Tu	0608 1.5 46 1250 0.1 3 1916 1.1 34
2 Th	0555 0.8 24 0932 0.6 18 1619 1.5 46 2342 -0.1 -3	17 F	0008 0.1 3 0702 1.1 34 1148 0.5 15 1832 1.4 43	2 Sa	0603 1.2 37 1051 0.5 15 1729 1.6 49 2354 0.0 0	17 Su	0640 1.3 40 1228 0.4 12 1854 1.3 40	2 Tu	0639 1.7 52 1300 -0.2 -6 1947 1.3 40	17 W	0010 0.5 15 0644 1.6 49 1335 0.0 0 2009 1.0 30
3 F	0649 0.9 27 1058 0.5 15 1746 1.6 49	18 Sa	0053 0.1 3 0736 1.2 37 1247 0.4 12 1927 1.5 46	3 Su	0644 1.3 40 1204 0.3 9 1846 1.6 49	18 M	0034 0.3 9 0709 1.5 46 1317 0.2 6 1946 1.3 40	3 W	0039 0.3 9 0721 1.9 58 1356 -0.4 -12 2048 1.2 37	18 Th	0045 0.5 15 0720 1.7 52 1415 -0.2 -6 2056 1.0 30
4 Sa	0037 -0.2 -6 0729 1.1 34 1210 0.4 12 1859 1.7 52	19 Su	0129 0.2 6 0803 1.3 40 1336 0.2 6 2012 1.5 46	4 M	0040 0.1 3 0721 1.5 46 1306 0.0 0 1953 1.6 49	19 Tu	0107 0.4 12 0736 1.6 49 1359 0.0 0 2031 1.2 37	4 Th	0122 0.3 9 0803 2.1 64 1449 -0.6 -18 2142 1.2 37	19 F	0120 0.5 15 0757 1.8 55 1454 -0.3 -9 2139 1.0 30
5 Su	0123 -0.2 -6 0805 1.3 40 1312 0.1 3 2001 1.8 55	20 M	0200 0.2 6 0827 1.4 43 1418 0.1 3 2052 1.5 46	5 Tu	0121 0.1 3 0757 1.8 55 1402 -0.3 -9 2051 1.6 49	20 W	0137 0.4 12 0804 1.7 52 1438 -0.1 -3 2113 1.2 37	5 F	0205 0.3 9 0847 2.1 64 1539 -0.6 -18 2231 1.1 34	20 Sa	0155 0.5 15 0835 1.8 55 1532 -0.4 -12 2221 1.0 30
6 M	0204 -0.1 -3 0838 1.5 46 1408 -0.1 -3 2058 1.8 55	21 Tu	0228 0.2 6 0851 1.6 49 1456 0.0 0 2130 1.4 43	6 W	0201 0.2 6 0834 1.9 58 1455 -0.5 -15 2146 1.5 46	21 Th	0206 0.4 12 0833 1.7 52 1514 -0.2 -6 2153 1.2 37	6 Sa	0249 0.3 9 0931 2.1 64 1628 -0.6 -18 2318 1.0 30	21 Su	0232 0.4 12 0914 1.9 58 1612 -0.4 -12 2303 1.0 30
7 Tu	0242 -0.1 -3 0912 1.7 52 1502 -0.3 -9 2151 1.8 55	22 W	0255 0.3 9 0915 1.6 49 1532 -0.1 -3 2207 1.4 43	7 Th	0240 0.2 6 0912 2.1 64 1547 -0.6 -18 2238 1.4 43	22 F	0235 0.4 12 0903 1.8 55 1549 -0.3 -9 2234 1.2 37	7 Su	0333 0.3 9 1016 2.1 64 1717 -0.5 -15	22 M	0312 0.4 12 0955 1.9 58 1653 -0.4 -12 2345 1.0 30
8 W	0320 0.0 0 0946 1.8 55 1554 -0.5 -15 2243 1.6 49	23 Th	0320 0.3 9 0940 1.7 52 1607 -0.2 -6 2245 1.3 40	8 F	0320 0.3 9 0952 2.1 64 1638 -0.7 -21 2328 1.2 37	23 Sa	0305 0.4 12 0936 1.8 55 1626 -0.4 -12 2315 1.1 34	8 M	0004 1.0 30 0419 0.4 12 1102 2.0 61 1806 -0.4 -12	23 Tu	0354 0.4 12 1038 2.0 61 1736 -0.4 -12
9 Th	0357 0.1 3 1022 2.0 61 1647 -0.6 -18 2334 1.4 43	24 F	0346 0.4 12 1007 1.7 52 1642 -0.3 -9 2324 1.2 37	9 Sa	0400 0.3 9 1034 2.1 64 1729 -0.6 -18	24 Su	0338 0.5 15 1010 1.8 55 1706 -0.4 -12	9 Tu	0051 1.0 30 0508 0.4 12 1149 1.9 58 1855 -0.3 -9	24 W	0029 1.0 30 0442 0.4 12 1125 1.9 58 1821 -0.3 -9
10 F	0434 0.2 6 1101 2.0 61 1741 -0.6 -18	25 Sa	0413 0.4 12 1036 1.7 52 1720 -0.3 -9	10 Su	0019 1.1 34 0442 0.4 12 1118 2.0 61 1822 -0.5 -15	25 M	0000 1.1 34 0413 0.5 15 1047 1.8 55 1749 -0.4 -12	10 W	0139 1.0 30 0602 0.5 15 1238 1.7 52 1946 -0.1 -3	25 Th	0114 1.1 34 0537 0.5 15 1216 1.8 55 1908 -0.2 -6
11 Sa	0027 1.2 37 0513 0.3 9 1143 2.0 61 1837 -0.5 -15	26 Su	0007 1.1 34 0442 0.5 15 1107 1.7 52 1802 -0.3 -9	11 M	0111 1.0 30 0527 0.4 12 1206 1.9 58 1919 -0.3 -9	26 Tu	0047 1.0 30 0453 0.5 15 1129 1.8 55 1837 -0.3 -9	11 Th	0229 1.0 30 0706 0.5 15 1331 1.6 49 2036 0.0 0	26 F	0200 1.2 37 0641 0.5 15 1314 1.7 52 1956 -0.1 -3
12 Su	0124 1.1 34 0554 0.4 12 1229 1.9 58 1938 -0.3 -9	27 M	0054 1.0 30 0515 0.5 15 1143 1.7 52 1850 -0.2 -6	12 Tu	0209 0.9 27 0619 0.5 15 1259 1.7 52 2019 -0.1 -3	27 W	0139 1.0 30 0540 0.6 18 1217 1.8 55 1930 -0.2 -6	12 F	0320 1.1 34 0822 0.6 18 1430 1.4 43 2126 0.2 6	27 Sa	0247 1.3 40 0756 0.4 12 1421 1.5 46 2044 0.1 3
13 M	0228 0.9 27 0642 0.5 15 1323 1.7 52 2046 -0.2 -6	28 Tu	0149 1.0 30 0553 0.6 18 1226 1.7 52 1947 -0.2 -6	13 W	0314 0.9 27 0724 0.6 18 1400 1.6 49 2122 0.0 0	28 Th	0235 1.0 30 0639 0.6 18 1315 1.7 52 2027 -0.1 -3	13 Sa	0409 1.2 37 0943 0.5 15 1540 1.2 37 2212 0.3 9	28 Su	0334 1.4 43 0918 0.3 9 1541 1.3 40 2133 0.2 6
14 Tu	0346 0.8 24 0742 0.5 15 1428 1.6 49 2200 0.0 0	29 W	0255 0.9 27 0643 0.6 18 1321 1.6 49 2052 -0.1 -3	14 Th	0422 1.0 30 0847 0.6 18 1513 1.4 43 2221 0.1 3	29 F	0331 1.1 34 0756 0.6 18 1425 1.6 49 2123 0.0 0	14 Su	0453 1.3 40 1056 0.4 12 1657 1.1 34 2255 0.4 12	29 M	0423 1.6 49 1038 0.1 3 1710 1.2 37 2223 0.3 9
15 W	0510 0.8 24 0903 0.6 18 1552 1.5 46 2310 0.0 0	30 Th	0408 0.9 27 0754 0.7 21 1432 1.6 49 2200 -0.1 -3	15 F	0521 1.1 34 1014 0.6 18 1634 1.3 40 2313 0.2 6	30 Sa	0424 1.2 37 0923 0.5 15 1548 1.5 46 2218 0.1 3	15 M	0532 1.4 43 1158 0.3 9 1812 1.1 34 2334 0.4 12	30 Tu	0513 1.7 52 1150 -0.1 -3 1834 1.1 34 2312 0.4 12
						31 Su	0512 1.4 43 1046 0.3 9 1716 1.4 43 2308 0.2 6				

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Key West, Florida, 2020

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	h m	ft	h m	ft	h m	ft	h m	ft	h m	ft
1 Th ○	0252 0.6 18 0929 2.1 64 1519 0.6 18 2140 2.0 61	16 F ●	0235 0.2 6 0923 2.2 67 1451 0.5 15 2117 2.4 73	1 Su	0351 0.2 6 1026 1.7 52 1529 0.8 24 2149 2.2 67	16 M	0410 -0.3 -9 1101 1.6 49 1533 0.6 18 2208 2.5 76	1 Tu	0411 -0.1 -3 1053 1.3 40 1523 0.7 21 2156 2.0 61	16 W	0452 -0.5 -15 1137 1.1 34 1557 0.4 12 2244 2.2 67
2 F	0331 0.5 15 1004 2.0 61 1546 0.7 21 2203 2.0 61	17 Sa	0327 0.0 0 1015 2.1 64 1528 0.6 18 2153 2.5 76	2 M	0426 0.2 6 1104 1.6 49 1556 0.8 24 2219 2.2 67	17 Tu	0503 -0.3 -9 1152 1.4 43 1616 0.6 18 2255 2.5 76	2 W	0448 -0.1 -3 1135 1.3 40 1556 0.7 21 2232 2.0 61	17 Th	0541 -0.4 -12 1223 1.1 34 1646 0.4 12 2333 2.1 64
3 Sa	0408 0.4 12 1039 2.0 61 1612 0.7 21 2228 2.1 64	18 Su	0419 -0.1 -3 1108 1.9 58 1605 0.7 21 2233 2.6 79	3 Tu	0503 0.2 6 1145 1.5 46 1624 0.9 27 2251 2.1 64	18 W	0557 -0.2 -6 1245 1.3 40 1701 0.7 21 2346 2.3 70	3 Th	0529 -0.1 -3 1219 1.2 37 1633 0.7 21 2311 2.0 61	18 F	0631 -0.2 -6 1310 1.1 34 1740 0.5 15
4 Su	0445 0.4 12 1117 1.8 55 1638 0.8 24 2255 2.1 64	19 M	0513 -0.1 -3 1201 1.8 55 1644 0.8 24 2316 2.5 76	4 W	0544 0.2 6 1231 1.4 43 1655 0.9 27 2326 2.1 64	19 Th	0654 0.0 0 1342 1.2 37 1754 0.8 24	4 F	0613 0.0 0 1308 1.2 37 1716 0.7 21 2356 1.9 58	19 Sa	0023 1.9 58 0721 0.0 0 1359 1.1 34 1842 0.5 15
5 M	0524 0.4 12 1157 1.7 52 1704 0.9 27 2325 2.1 64	20 Tu	0610 0.0 0 1258 1.6 49 1726 0.8 24	5 Th	0630 0.3 9 1324 1.4 43 1731 1.0 30	20 F	0041 2.2 67 0755 0.1 3 1445 1.2 37 1858 0.8 24	5 Sa	0703 0.0 0 1400 1.2 37 1810 0.8 24	20 Su	0116 1.7 52 0812 0.1 3 1450 1.2 37 1955 0.6 18
6 Tu	0605 0.4 12 1242 1.6 49 1732 1.0 30 2359 2.0 61	21 W	0005 2.5 76 0712 0.1 3 1402 1.4 43 1814 0.9 27	6 F	0008 2.0 61 0725 0.3 9 1427 1.3 40 1817 1.0 30	21 Sa	0144 2.0 61 0859 0.3 9 1553 1.3 40 ● 2019 0.9 27	6 Su	0049 1.9 58 0756 0.1 3 1455 1.2 37 1920 0.8 24	21 M	0215 1.5 46 0902 0.2 6 1541 1.2 37 ● 2117 0.6 18
7 W	0653 0.4 12 1335 1.5 46 1803 1.0 30	22 Th	0101 2.3 70 0821 0.3 9 1518 1.3 40 1914 1.0 30	7 Sa	0101 2.0 61 0828 0.4 12 1538 1.3 40 1924 1.1 34	22 Su	0257 1.8 55 1000 0.4 12 1655 1.4 43 2149 0.9 27	7 M	0154 1.7 52 0851 0.2 6 1549 1.3 40 ● 2046 0.7 21	22 Tu	0325 1.3 40 0951 0.4 12 1630 1.3 40 2235 0.5 15
8 Th	0038 2.0 61 0751 0.5 15 1442 1.4 43 1843 1.1 34	23 F	0209 2.2 67 0936 0.4 12 1639 1.3 40 ● 2035 1.0 30	8 Su	0209 1.9 58 0935 0.4 12 1644 1.4 43 ● 2055 1.1 34	23 M	0419 1.7 52 1054 0.5 15 1744 1.5 46 2308 0.8 24	8 Tu	0313 1.6 49 0946 0.3 9 1638 1.5 46 2212 0.5 15	23 W	0446 1.2 37 1037 0.4 12 1714 1.4 43 2342 0.3 9
9 F	0129 2.0 61 0902 0.5 15 1607 1.3 40 ● 1942 1.2 37	24 Sa	0332 2.0 61 1047 0.5 15 1747 1.4 43 2205 1.0 30	9 M	0333 1.9 58 1036 0.4 12 1734 1.5 46 2224 0.9 27	24 Tu	0536 1.6 49 1139 0.6 18 1823 1.6 49	9 W	0442 1.5 46 1038 0.4 12 1724 1.6 49 2326 0.3 9	24 Th	0604 1.1 34 1121 0.5 15 1754 1.5 46
10 Sa	0237 2.0 61 1017 0.5 15 1728 1.4 43 2109 1.2 37	25 Su	0458 2.0 61 1146 0.5 15 1837 1.6 49 2324 0.9 27	10 Tu	0459 1.9 58 1128 0.5 15 1815 1.7 52 2337 0.7 21	25 W	0011 0.6 18 0641 1.6 49 1218 0.6 18 1854 1.7 52	10 Th	0606 1.5 46 1126 0.4 12 1808 1.8 55	25 F	0037 0.2 6 0709 1.1 34 1201 0.5 15 1833 1.6 49
11 Su	0400 2.0 61 1122 0.5 15 1823 1.5 46 2236 1.1 34	26 M	0611 2.0 61 1231 0.6 18 1914 1.7 52	11 W	0617 1.9 58 1213 0.5 15 1852 1.9 58	26 Th	0102 0.4 12 0733 1.5 46 1252 0.6 18 1922 1.8 55	11 F	0031 0.0 0 0719 1.4 43 1212 0.5 15 1851 2.0 61	26 Sa	0124 0.0 0 0801 1.1 34 1238 0.5 15 1910 1.7 52
12 M	0522 2.1 64 1214 0.4 12 1902 1.6 49 2347 0.9 27	27 Tu	0027 0.8 24 0709 2.0 61 1308 0.6 18 1944 1.8 55	12 Th	0039 0.4 12 0723 1.9 58 1254 0.5 15 1928 2.1 64	27 F	0145 0.3 9 0818 1.5 46 1323 0.7 21 1950 1.9 58	12 Sa	0128 -0.2 -6 0821 1.4 43 1257 0.5 15 1936 2.2 67	27 Su	0205 -0.1 -3 0844 1.1 34 1314 0.5 15 1948 1.7 52
13 Tu	0632 2.2 67 1258 0.4 12 1937 1.8 55	28 W	0118 0.7 21 0755 1.9 58 1340 0.7 21 2009 1.9 58	13 F	0135 0.1 3 0823 1.9 58 1334 0.6 18 2005 2.3 70	28 Sa	0224 0.1 3 0859 1.5 46 1353 0.7 21 2019 2.0 61	13 Su	0222 -0.4 -12 0915 1.3 40 1341 0.4 12 2022 2.3 70	28 M	0244 -0.2 -6 0924 1.0 30 1349 0.5 15 2026 1.8 55
14 W	0047 0.7 21 0733 2.3 70 1337 0.4 12 2010 2.0 61	29 Th	0201 0.5 15 0836 1.9 58 1409 0.7 21 2033 2.0 61	14 Sa	0228 -0.1 -3 0918 1.8 55 1413 0.6 18 2043 2.4 73	29 Su	0300 0.0 0 0937 1.4 43 1423 0.7 21 2049 2.0 61	14 M	0313 -0.5 -15 1005 1.2 37 1425 0.4 12 ● 2108 2.3 70	29 Tu	0320 -0.3 -9 1002 1.0 30 1424 0.4 12 2105 1.8 55
15 Th	0142 0.4 12 0830 2.3 70 1414 0.5 15 2043 2.2 67	30 F	0240 0.4 12 0913 1.9 58 1436 0.7 21 2056 2.1 64	15 Su	0319 -0.3 -9 1010 1.7 52 1453 0.6 18 ● 2125 2.5 76	30 M	0335 0.0 0 1014 1.4 43 1452 0.7 21 ○ 2122 2.0 61	15 Tu	0403 -0.6 -18 1052 1.2 37 1510 0.4 12 2156 2.3 70	30 W	0357 -0.4 -12 1040 1.0 30 1501 0.4 12 2144 1.9 58
		31 Sa	0316 0.3 9 0949 1.8 55 1502 0.8 24 ○ 2122 2.2 67							31 Th	0435 -0.4 -12 1119 1.0 30 1540 0.4 12 2224 1.9 58

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Naples, Florida, 2020

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	h m	ft	h m	ft	h m	ft	h m	ft	h m	ft
1 W	0345 2.0 61 1029 0.3 9 1716 2.1 64 2324 1.0 30	16 Th	0416 2.2 67 1040 0.2 6 1707 2.3 70 2331 0.4 12	1 Sa	0527 1.6 49 1018 0.9 27 1729 2.1 64	16 Su	0018 -0.1 -3 0719 1.6 49 1211 1.2 37 1805 2.3 70	1 Su	0451 1.7 52 0908 1.1 34 1536 2.2 67 2347 0.2 6	16 M	0728 1.7 52 1147 1.5 46 1732 2.4 73
2 Th	0459 1.8 55 1121 0.6 18 1800 2.2 67	17 F	0546 1.9 58 1140 0.6 18 1755 2.3 70	2 Su	0038 0.3 9 0652 1.5 46 1039 1.2 37 1817 2.1 64	17 M	0130 -0.2 -6 1018 1.7 52 1327 1.4 43 1916 2.3 70	2 M	0622 1.5 46 0927 1.3 40 1618 2.2 67	17 Tu	0105 -0.1 -3 1016 1.9 58 1315 1.6 49 1859 2.3 70
3 F	0031 0.8 24 0617 1.7 52 1217 0.9 27 1844 2.2 67	18 Sa	0044 0.1 3 0718 1.7 52 1244 0.9 27 1846 2.4 73	3 M	0140 0.1 3 0823 1.5 46 1301 1.3 40 1911 2.1 64	18 Tu	0236 -0.4 -12 1111 1.8 55 1438 1.4 43 2028 2.4 73	3 Tu	0057 0.1 3 0759 1.6 49 0957 1.5 46 1742 2.2 67	18 W	0212 -0.1 -3 1051 2.0 61 1430 1.5 46 2017 2.3 70
4 Sa	0130 0.5 15 0733 1.6 49 1313 1.1 34 1927 2.2 67	19 Su	0152 -0.2 -6 0909 1.7 52 1348 1.1 34 1941 2.4 73	4 Tu	0237 -0.2 -6 0952 1.6 49 1417 1.4 43 2011 2.3 70	19 W	0334 -0.5 -15 1143 1.9 58 1439 1.3 40 2130 2.5 76	4 W	0201 -0.1 -3 0939 1.7 52 1350 1.6 49 1932 2.3 70	19 Th	0310 -0.1 -3 1111 2.1 64 1529 1.3 40 2122 2.4 73
5 Su	0223 0.2 6 0852 1.7 52 1407 1.2 37 2011 2.3 70	20 M	0253 -0.4 -12 1046 1.8 55 1450 1.2 37 2040 2.5 76	5 W	0329 -0.5 -15 1043 1.8 55 1519 1.4 43 2107 2.4 73	20 Th	0423 -0.5 -15 1201 2.0 61 1629 1.1 34 2219 2.6 79	5 Th	0259 -0.4 -12 1022 1.9 58 1459 1.5 46 2047 2.5 76	20 F	0359 -0.1 -3 1117 2.2 67 1616 1.0 30 2212 2.5 76
6 M	0311 -0.1 -3 1000 1.7 52 1458 1.3 40 2054 2.4 73	21 Tu	0349 -0.7 -21 1137 1.9 58 1547 1.2 37 2134 2.6 79	6 Th	0417 -0.8 -24 1120 1.9 58 1609 1.3 40 2156 2.6 79	21 F	0505 -0.6 -18 1210 2.0 61 1711 0.9 27 2300 2.6 79	6 F	0351 -0.6 -18 1053 2.1 64 1552 1.2 37 2146 2.8 85	21 Sa	0440 -0.1 -3 1124 2.3 70 1654 0.8 24 2251 2.6 79
7 Tu	0356 -0.4 -12 1049 1.9 58 1546 1.3 40 2133 2.5 76	22 W	0438 -0.8 -24 1212 1.9 58 1637 1.2 37 2221 2.7 82	7 F	0501 -1.0 -30 1155 2.0 61 1655 1.1 34 2240 2.8 85	22 Sa	0543 -0.5 -15 1223 2.1 64 1749 0.8 24 2336 2.6 79	7 Sa	0438 -0.7 -21 1122 2.2 67 1639 0.9 27 2236 3.0 91	22 Su	0516 0.0 0 1139 2.4 73 1730 0.6 18 2326 2.7 82
8 W	0439 -0.7 -21 1132 2.0 61 1629 1.3 40 2209 2.7 82	23 Th	0522 -0.9 -27 1236 1.9 58 1722 1.1 34 2302 2.7 82	8 Sa	0545 -1.1 -34 1229 2.1 64 1739 0.9 27 2323 3.0 91	23 Su	0619 -0.4 -12 1244 2.2 67 1826 0.7 21	8 Su	0522 -0.8 -24 1152 2.4 73 1724 0.6 18 2323 3.1 94	23 M	0550 0.1 3 1159 2.5 76 1804 0.5 15
9 Th	0521 -0.9 -27 1212 2.0 61 1710 1.2 37 2243 2.8 85	24 F	0603 -0.9 -27 1259 2.0 61 1804 1.0 30 2340 2.7 82	9 Su	0628 -1.1 -34 1304 2.2 67 1825 0.7 21	24 M	0011 2.6 79 0653 -0.3 -9 1309 2.3 70 1902 0.5 15	9 M	0604 -0.7 -21 1222 2.5 76 1810 0.3 9	24 Tu	0000 2.6 79 0622 0.2 6 1223 2.5 76 1838 0.3 9
10 F	0604 -1.1 -34 1254 2.1 64 1752 1.2 37 2319 2.9 88	25 Sa	0642 -0.8 -24 1324 2.0 61 1845 0.9 27	10 M	0009 3.0 91 0711 -1.0 -30 1339 2.3 70 1912 0.5 15	25 Tu	0047 2.5 76 0725 -0.1 -3 1336 2.3 70 1938 0.4 12	10 Tu	0011 3.1 94 0646 -0.4 -12 1252 2.6 79 1857 0.0 0	25 W	0035 2.6 79 0652 0.4 12 1246 2.6 79 1913 0.2 6
11 Sa	0647 -1.2 -37 1337 2.1 64 1836 1.1 34 2359 2.9 88	26 Su	0017 2.6 79 0719 -0.6 -18 1353 2.1 64 1924 0.8 24	11 Tu	0101 2.9 88 0753 -0.7 -21 1414 2.3 70 2002 0.3 9	26 W	0124 2.4 73 0755 0.1 3 1404 2.3 70 2015 0.4 12	11 W	0103 3.0 91 0727 -0.1 -3 1324 2.7 82 1946 -0.2 -6	26 Th	0111 2.5 76 0719 0.6 18 1307 2.6 79 1948 0.1 3
12 Su	0731 -1.1 -34 1419 2.2 67 1924 1.0 30	27 M	0056 2.5 76 0755 -0.4 -12 1425 2.1 64 2004 0.8 24	12 W	0158 2.7 82 0835 -0.3 -9 1450 2.4 73 2055 0.1 3	27 Th	0204 2.3 70 0821 0.4 12 1430 2.3 70 2054 0.3 9	12 Th	0200 2.7 82 0808 0.2 6 1357 2.7 82 2037 -0.3 -9	27 F	0151 2.3 70 0742 0.8 24 1324 2.6 79 2026 0.1 3
13 M	0048 2.9 88 0815 -0.9 -27 1500 2.2 67 2015 0.8 24	28 Tu	0137 2.4 73 0829 -0.2 -6 1458 2.1 64 2045 0.7 21	13 Th	0301 2.4 73 0918 0.1 3 1527 2.4 73 2154 0.0 0	28 F	0247 2.1 64 0842 0.6 18 1453 2.3 70 2138 0.3 9	13 F	0301 2.4 73 0848 0.6 18 1433 2.7 82 2133 -0.3 -9	28 Sa	0235 2.2 67 0801 1.0 30 1340 2.5 76 2108 0.1 3
14 Tu	0147 2.7 82 0901 -0.6 -18 1541 2.2 67 2111 0.7 21	29 W	0221 2.2 67 0902 0.1 3 1532 2.2 67 2129 0.7 21	14 F	0413 2.1 64 1003 0.6 18 1608 2.4 73 2303 0.0 0	29 Sa	0339 1.9 58 0856 0.9 27 1511 2.2 67 2235 0.3 9	14 Sa	0409 2.1 64 0929 1.0 30 1514 2.6 79 2237 -0.2 -6	29 Su	0329 2.0 61 0816 1.2 37 1403 2.5 76 2159 0.1 3
15 W	0256 2.4 73 0948 -0.2 -6 1623 2.2 67 2216 0.6 18	30 Th	0310 2.0 61 0932 0.4 12 1608 2.1 64 2223 0.6 18	15 Sa	0538 1.8 55 1059 1.0 30 1700 2.4 73	15 Su	0533 1.8 55 1022 1.3 40 1609 2.5 76 2351 -0.1 -3	15 Su	0533 1.8 55 1022 1.3 40 1609 2.5 76 2351 -0.1 -3	30 M	0441 1.8 55 0835 1.4 43 1437 2.5 76 2306 0.1 3
		31 F	0410 1.8 55 0958 0.7 21 1646 2.1 64 2330 0.5 15							31 Tu	0609 1.8 55 0902 1.6 49 1524 2.4 73

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Naples, Florida, 2020

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	h m	ft	h m	ft	h m	ft	h m	ft	h m	ft
1 Th ○	0544 0.9 27 1149 3.2 98 1807 1.0 30 2357 3.1 94	16 F ●	0527 0.3 9 1148 3.5 107 1754 0.8 24 2334 3.4 104	1 Su	0632 0.2 6 1251 2.8 85 1833 1.5 46 2353 3.0 91	16 M	0649 -0.8 -24 1336 2.7 82 1852 1.4 43	1 Tu	0650 -0.4 -12 1329 2.3 70 1834 1.5 46 2341 2.9 88	16 W	0724 -1.0 -30 1423 2.2 67 1922 1.3 40
2 F	0619 0.7 21 1224 3.2 98 1838 1.1 34	17 Sa	0614 0.0 0 1239 3.4 104 1835 1.1 34	2 M	0708 0.1 3 1333 2.7 82 1859 1.6 49	17 Tu	0006 3.4 104 0738 -0.7 -21 1434 2.6 79 1938 1.5 46	2 W	0729 -0.4 -12 1416 2.3 70 1906 1.5 46	17 Th	0041 3.0 91 0811 -0.8 -24 1509 2.2 67 2012 1.3 40
3 Sa	0020 3.1 94 0654 0.6 18 1300 3.1 94 1908 1.3 40	18 Su	0003 3.4 104 0702 -0.2 -6 1335 3.2 98 1917 1.3 40	3 Tu	0008 3.0 91 0746 0.1 3 1420 2.6 79 1923 1.7 52	18 W	0048 3.2 98 0829 -0.5 -15 1532 2.4 73 2027 1.6 49	3 Th	0007 2.8 85 0810 -0.4 -12 1506 2.2 67 1943 1.6 49	18 F	0135 2.8 85 0857 -0.5 -15 1554 2.1 64 2105 1.2 37
4 Su	0041 3.1 94 0730 0.6 18 1340 2.9 88 1935 1.5 46	19 M	0035 3.4 104 0752 -0.3 -9 1436 2.9 88 2000 1.6 49	4 W	0029 3.0 91 0827 0.1 3 1513 2.5 76 1948 1.8 55	19 Th	0140 3.0 91 0921 -0.3 -9 1634 2.3 70 2125 1.7 52	4 F	0043 2.8 85 0853 -0.3 -9 1558 2.2 67 2029 1.6 49	19 Sa	0237 2.5 76 0945 -0.2 -6 1640 2.2 67 2208 1.2 37
5 M	0059 3.0 91 0808 0.5 15 1425 2.8 85 1957 1.6 49	20 Tu	0114 3.4 104 0845 -0.2 -6 1541 2.7 82 2045 1.8 55	5 Th	0059 2.9 88 0913 0.2 6 1615 2.4 73 2020 1.9 58	20 F	0249 2.8 85 1019 0.0 0 1736 2.3 70 2240 1.7 52	5 Sa	0129 2.7 82 0941 -0.2 -6 1651 2.2 67 2131 1.6 49	20 Su	0345 2.2 67 1037 0.2 6 1726 2.2 67 2321 1.1 34
6 Tu	0117 3.0 91 0849 0.6 18 1517 2.6 79 2014 1.8 55	21 W	0201 3.2 98 0943 0.0 0 1655 2.5 76 2141 2.0 61	6 F	0139 2.8 85 1007 0.3 9 1723 2.4 73 2111 2.0 61	21 Sa	0417 2.5 76 1123 0.3 9 1832 2.3 70	6 Su	0230 2.5 76 1037 0.0 0 1743 2.3 70 2258 1.5 46	21 M	0502 2.0 61 1134 0.5 15 1811 2.2 67
7 W	0141 2.9 88 0937 0.6 18 1623 2.5 76 2032 2.0 61	22 Th	0305 3.0 91 1049 0.3 9 1819 2.4 73 2303 2.0 61	7 Sa	0234 2.7 82 1112 0.4 12 1827 2.4 73 2322 2.0 61	22 Su	0006 1.6 49 0546 2.4 73 1227 0.6 18 1920 2.4 73	7 M	0400 2.3 70 1139 0.3 9 1830 2.4 73	22 Tu	0033 0.9 27 0618 1.9 58 1233 0.8 24 1855 2.3 70
8 Th	0215 2.8 85 1038 0.7 21 1741 2.4 73 2101 2.1 64	23 F	0443 2.8 85 1201 0.5 15 1943 2.4 73	8 Su	0358 2.6 79 1220 0.5 15 1921 2.5 76	23 M	0117 1.3 40 0704 2.3 70 1325 0.8 24 2002 2.5 76	8 Tu	0022 1.2 37 0606 2.2 67 1241 0.5 15 1913 2.4 73	23 W	0134 0.7 21 0734 1.8 55 1328 1.0 30 1938 2.3 70
9 F	0302 2.8 85 1152 0.7 21 1858 2.4 73 2212 2.2 67	24 Sa	0034 1.9 58 0618 2.7 82 1309 0.6 18 2049 2.5 76	9 M	0052 1.8 55 0629 2.6 79 1321 0.5 15 2007 2.6 79	24 Tu	0215 1.1 34 0816 2.3 70 1418 0.9 27 2039 2.6 79	9 W	0127 0.8 24 0734 2.2 67 1339 0.7 21 1954 2.6 79	24 Th	0227 0.4 12 0852 1.8 55 1421 1.1 34 2022 2.4 73
10 Sa	0425 2.7 82 1300 0.7 21 2006 2.5 76	25 Su	0146 1.7 52 0737 2.7 82 1409 0.7 21 2120 2.6 79	10 Tu	0154 1.4 43 0752 2.7 82 1417 0.6 18 2047 2.7 82	25 W	0303 0.8 24 0922 2.3 70 1506 1.0 30 2113 2.7 82	10 Th	0226 0.3 9 0854 2.3 70 1435 0.8 24 2035 2.7 82	25 F	0315 0.1 3 1000 1.8 55 1511 1.2 37 2103 2.4 73
11 Su	0117 2.1 64 0658 2.8 85 1400 0.6 18 2059 2.6 79	26 M	0244 1.5 46 0847 2.8 85 1501 0.8 24 2143 2.7 82	11 W	0248 1.0 30 0902 2.8 85 1509 0.7 21 2123 2.9 88	26 Th	0346 0.5 15 1013 2.4 73 1549 1.2 37 2145 2.7 82	11 F	0320 -0.1 -3 1003 2.4 73 1527 1.0 30 2116 2.9 88	26 Sa	0358 -0.1 -3 1048 1.9 58 1555 1.3 40 2141 2.5 76
12 M	0218 1.9 58 0813 3.0 91 1454 0.5 15 2137 2.8 85	27 Tu	0331 1.2 37 0944 2.8 85 1546 0.9 27 2205 2.8 85	12 Th	0338 0.5 15 1003 3.0 91 1558 0.8 24 2155 3.1 94	27 F	0424 0.2 6 1053 2.4 73 1627 1.2 37 2214 2.8 85	12 Sa	0412 -0.6 -18 1101 2.4 73 1617 1.1 34 2155 3.0 91	27 Su	0438 -0.4 -12 1126 2.0 61 1634 1.3 40 2215 2.6 79
13 Tu	0310 1.5 46 0916 3.2 98 1544 0.5 15 2209 2.9 88	28 W	0411 0.9 27 1027 2.9 88 1625 1.0 30 2228 2.9 88	13 F	0426 0.0 0 1056 3.0 91 1643 0.9 27 2226 3.2 98	28 Sa	0500 0.0 0 1130 2.4 73 1702 1.3 40 2241 2.8 85	13 Su	0501 -0.9 -27 1153 2.4 73 1703 1.2 37 2234 3.1 94	28 M	0516 -0.6 -18 1202 2.0 61 1709 1.3 40 2244 2.6 79
14 W	0357 1.1 34 1010 3.4 104 1629 0.5 15 2238 3.1 94	29 Th	0448 0.7 21 1104 2.9 88 1701 1.1 34 2252 3.0 91	14 Sa	0513 -0.4 -12 1148 3.0 91 1726 1.1 34 2257 3.3 101	29 Su	0536 -0.2 -6 1207 2.4 73 1734 1.4 43 2304 2.9 88	14 M	0549 -1.1 -34 1244 2.4 73 1748 1.2 37 ● 2314 3.2 98	29 Tu	0554 -0.7 -21 1240 2.0 61 1743 1.3 40 2310 2.7 82
15 Th	0442 0.7 21 1059 3.5 107 1712 0.6 18 2306 3.2 98	30 F	0522 0.4 12 1138 2.9 88 1734 1.2 37 2315 3.0 91	15 Su	0600 -0.7 -21 1240 2.9 88 1809 1.3 40 ● 2330 3.4 104	30 M	0612 -0.3 -9 1246 2.4 73 1804 1.4 43 ○ 2322 2.9 88	15 Tu	0637 -1.1 -34 1334 2.3 70 1835 1.3 40 2355 3.1 94	30 W	0633 -0.8 -24 1320 2.1 64 1819 1.3 40 2336 2.7 82
		31 Sa	0557 0.3 9 1213 2.8 85 1804 1.4 43 ○ 2336 3.1 94							31 Th	0712 -0.8 -24 1402 2.1 64 1858 1.2 37

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

St. Petersburg, Florida, 2020

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	h m	ft	h m	ft	h m	ft	h m	ft	h m	ft
1 Th	0132 2.1 64 0727 0.8 24 1346 2.3 70 1951 0.8 24	16 F	0056 2.3 70 0716 0.4 12 1346 2.4 73 1935 0.9 27	1 Su	0100 2.5 76 0822 0.0 0 1509 1.8 55 1931 1.3 40	16 M	0101 2.7 82 0851 -0.6 -18 1609 1.6 49 1925 1.4 43	1 Tu	0046 2.4 73 0849 -0.4 -12 1613 1.4 43 1857 1.3 40	16 W	0120 2.6 79 0936 -0.8 -24
2 F	0142 2.2 67 0801 0.6 18 1423 2.3 70 2010 1.0 30	17 Sa	0117 2.4 73 0804 0.1 3 1444 2.3 70 2001 1.2 37	2 M	0120 2.5 76 0856 0.0 0 1550 1.7 52 1947 1.4 43	17 Tu	0136 2.8 85 0943 -0.6 -18 1725 1.5 46 1941 1.4 43	2 W	0118 2.5 76 0927 -0.5 -15 1700 1.3 40 1920 1.2 37	17 Th	0204 2.5 76 1023 -0.7 -21
3 Sa	0154 2.3 70 0834 0.5 15 1500 2.1 64 2028 1.1 34	18 Su	0142 2.6 79 0854 -0.1 -3 1545 2.1 64 2025 1.4 43	3 Tu	0146 2.6 79 0934 -0.1 -3 1638 1.6 49 2005 1.4 43	18 W	0215 2.8 85 1037 -0.5 -15	3 Th	0155 2.5 76 1010 -0.4 -12	18 F	0250 2.3 70 1109 -0.5 -15 1857 1.2 37 2116 1.1 34
4 Su	0210 2.4 73 0909 0.4 12 1540 2.0 61 2046 1.3 40	19 M	0211 2.8 85 0948 -0.2 -6 1654 1.9 58 2044 1.5 46	4 W	0217 2.6 79 1018 -0.1 -3 1738 1.6 49 2023 1.5 46	19 Th	0258 2.6 79 1135 -0.3 -9	4 F	0238 2.4 73 1058 -0.4 -12	19 Sa	0342 2.1 64 1154 -0.3 -9 1929 1.3 40 2251 1.1 34
5 M	0232 2.5 76 0948 0.3 9 1625 1.9 58 2105 1.4 43	20 Tu	0244 2.8 85 1046 -0.1 -3 1826 1.7 52 2055 1.6 49	5 Th	0254 2.6 79 1110 0.0 0	20 F	0349 2.4 73 1236 -0.1 -3	5 Sa	0327 2.3 70 1151 -0.3 -9 1942 1.3 40 2206 1.2 37	20 Su	0442 1.8 55 1239 -0.1 -3 2000 1.4 43
6 Tu	0259 2.6 79 1033 0.3 9 1721 1.8 55 2125 1.5 46	21 W	0323 2.8 85 1152 0.0 0	6 F	0338 2.5 76 1211 0.0 0	21 Sa	0453 2.1 64 1337 0.0 0 2152 1.6 49	6 Su	0427 2.1 64 1246 -0.2 -6 2020 1.4 43	21 M	0038 1.0 30 0559 1.5 46 1323 0.1 3 2029 1.5 46
7 W	0332 2.6 79 1126 0.3 9 1839 1.7 52 2143 1.6 49	22 Th	0411 2.6 79 1306 0.1 3	7 Sa	0434 2.4 73 1320 0.1 3	22 Su	0105 1.5 46 0628 1.9 58 1434 0.2 6 2207 1.7 52	7 M	0002 1.2 37 0544 1.9 58 1341 -0.1 -3 2051 1.5 46	22 Tu	0219 0.8 24 0740 1.3 40 1407 0.3 9 2058 1.6 49
8 Th	0411 2.5 76 1233 0.4 12	23 F	0514 2.4 73 1423 0.2 6	8 Su	0551 2.2 67 1427 0.1 3 2216 1.7 52	23 M	0305 1.2 37 0824 1.7 52 1523 0.3 9 2227 1.8 55	8 Tu	0154 1.0 30 0722 1.7 52 1434 0.1 3 2120 1.7 52	23 W	0338 0.5 15 0928 1.2 37 1450 0.5 15 2127 1.7 52
9 F	0503 2.5 76 1351 0.4 12	24 Sa	0655 2.2 67 1532 0.3 9 2324 1.8 55	9 M	0202 1.5 46 0733 2.1 64 1526 0.2 6 2236 1.8 55	24 Tu	0419 0.9 27 1000 1.6 49 1606 0.5 15 2246 1.9 58	9 W	0322 0.7 21 0908 1.5 46 1522 0.3 9 2149 1.9 58	24 Th	0438 0.2 6 1102 1.1 34 1531 0.7 21 2155 1.8 55
10 Sa	0615 2.4 73 1509 0.3 9 2333 1.8 55	25 Su	0319 1.6 49 0856 2.1 64 1626 0.4 12 2338 1.9 58	10 Tu	0335 1.2 37 0915 2.0 61 1618 0.3 9 2256 1.9 58	25 W	0511 0.6 18 1114 1.6 49 1643 0.7 21 2305 2.0 61	10 Th	0431 0.3 9 1043 1.5 46 1606 0.6 18 2219 2.1 64	25 F	0527 -0.1 -3 1220 1.2 37 1609 0.9 27 2222 1.9 58
11 Su	0152 1.7 52 0753 2.3 70 1614 0.3 9 2345 1.9 58	26 M	0437 1.3 40 1023 2.1 64 1709 0.5 15 2354 2.0 61	11 W	0441 0.9 27 1040 2.0 61 1702 0.4 12 2317 2.1 64	26 Th	0553 0.3 9 1216 1.6 49 1715 0.8 24 2322 2.1 64	11 F	0530 -0.1 -3 1207 1.5 46 1644 0.8 24 2250 2.3 70	26 Sa	0611 -0.3 -9 1325 1.2 37 1643 1.0 30 2251 2.0 61
12 M	0337 1.6 49 0929 2.4 73 1707 0.3 9	27 Tu	0529 1.1 34 1128 2.1 64 1744 0.6 18	12 Th	0535 0.5 15 1152 2.0 61 1740 0.7 21 2339 2.2 67	27 F	0631 0.1 3 1311 1.6 49 1741 1.0 30 2339 2.2 67	12 Sa	0623 -0.5 -15 1321 1.4 43 1718 1.0 30 2323 2.4 73	27 Su	0650 -0.5 -15 1420 1.2 37 1712 1.1 34 2321 2.1 64
13 Tu	0002 1.9 58 0445 1.4 43 1046 2.5 76 1751 0.3 9	28 W	0009 2.1 64 0610 0.8 24 1221 2.1 64 1813 0.8 24	13 F	0625 0.1 3 1257 2.0 61 1813 0.9 27	28 Sa	0706 -0.1 -3 1400 1.5 46 1803 1.1 34 2357 2.3 70	13 Su	0713 -0.7 -21 1429 1.4 43 1747 1.1 34 2359 2.6 79	28 M	0728 -0.6 -18 1508 1.2 37 1738 1.1 34 2354 2.2 67
14 W	0019 2.0 61 0539 1.0 30 1150 2.5 76 1830 0.4 12	29 Th	0021 2.2 67 0646 0.5 15 1307 2.0 61 1837 0.9 27	14 Sa	0003 2.4 73 0714 -0.2 -6 1400 1.9 58 1841 1.1 34	29 Su	0739 -0.3 -9 1446 1.5 46 1821 1.2 37	14 M	0802 -0.9 -27 1533 1.3 40 1814 1.2 37	29 Tu	0805 -0.7 -21 1547 1.2 37 1806 1.1 34
15 Th	0037 2.1 64 0628 0.7 21 1249 2.5 76 1904 0.6 18	30 F	0033 2.2 67 0719 0.3 9 1350 2.0 61 1857 1.1 34	15 Su	0031 2.6 79 0802 -0.5 -15 1503 1.8 55 1905 1.3 40	30 M	0019 2.4 73 0813 -0.4 -12 1530 1.4 43 1838 1.3 40	15 Tu	0038 2.6 79 0849 -0.9 -27 1634 1.3 40 1841 1.2 37	30 W	0030 2.3 70 0842 -0.7 -21 1620 1.2 37 1839 1.1 34
		31 Sa	0045 2.3 70 0751 0.2 6 1430 1.9 58 1915 1.2 37							31 Th	0109 2.3 70 0920 -0.7 -21 1648 1.1 34 1921 1.0 30

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Cedar Key, Florida, 2020

Times and Heights of High and Low Waters

April				May				June																		
Time		Height		Time		Height		Time		Height		Time		Height												
h	m	ft	cm	h	m	ft	cm	h	m	ft	cm	h	m	ft	cm											
1 W	0115	0.2	6	16 Th	0305	0.6	18	1 F	0204	0.3	9	16 Sa	0308	1.0	30	1 M	0339	0.8	24	16 Tu	0345	1.5	46			
	0813	2.4	73		1002	2.6	79		0900	2.9	88		0944	3.1	94		0954	3.6	110		0958	3.6	110			
	1255	1.7	52		1500	1.8	55		1417	1.7	52		1545	1.4	43		1624	0.6	18		1656	0.7	21	1656	0.7	21
	1845	3.4	104		2049	3.0	91		1959	3.4	104		2140	2.9	88		2236	3.4	104		2314	3.0	91	2314	3.0	91
2 Th	0237	0.2	6	17 F	0415	0.6	18	2 Sa	0317	0.3	9	17 Su	0404	1.1	34	2 Tu	0435	1.0	30	17 W	0435	1.6	49			
	0942	2.5	76		1051	2.8	85		0958	3.0	91		1025	3.2	98		1037	3.8	116		1037	3.7	113			
	1431	1.8	55		1619	1.5	46		1536	1.4	43		1644	1.0	30		1724	0.1	3		1745	0.3	9	1745	0.3	9
	2014	3.3	101		2214	3.0	91		2129	3.5	107		2248	3.0	91		2345	3.5	107		2345	3.5	107	2345	3.5	107
3 F	0354	0.0	0	18 Sa	0509	0.6	18	3 Su	0420	0.3	9	18 M	0451	1.1	34	3 W	0527	1.2	37	18 Th	0011	3.1	94			
	1046	2.7	82		1129	3.0	91		1044	3.3	101		1101	3.4	104		1117	4.1	125		0522	1.7	52			
	1554	1.6	49		1718	1.1	34		1642	0.9	27		1734	0.7	21		1819	-0.3	-9		1113	3.9	119			
	2142	3.5	107		2318	3.2	98		2245	3.6	110		2345	3.2	98		2345	3.2	98		1829	0.1	3			

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

St. Marks River Entrance, Florida, 2020

Times and Heights of High and Low Waters

October				November				December																					
Time	Height			Time	Height			Time	Height			Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm										
1 Th O	0133	3.6	110		16 F ●	0115	3.9	119		1 Su	0135	3.7	113		16 M	0139	4.0	122		1 Tu	0128	3.4	104		16 W	0200	3.7	113	
	0737	0.7	21			0728	-0.1	-3			0821	0.0	0			0846	-1.1	-34			0837	-0.5	-15			0922	-1.2	-37	
	1351	3.9	119			1348	4.2	128			1445	3.5	107			1521	3.6	110			1511	3.2	98			1555	3.0	91	
	1958	0.7	21			1948	0.7	21			2013	1.2	37			2029	1.5	46			2021	1.2	37			2052	1.4	43	
2 F	0156	3.7	113		17 Sa	0144	4.0	122		2 M	0159	3.7	113		17 Tu	0213	3.9	119		2 W	0158	3.5	107		17 Th	0241	3.5	107	
	0809	0.5	15			0812	-0.4	-12			0851	-0.1	-3			0933	-1.0	-30			0909	-0.5	-15			1006	-0.9	-27	
	1424	3.8	116			1437	4.1	125			1519	3.5	107			1609	3.3	101			1548	3.1	94			1636	2.8	85	
	2022	0.8	24			2022	1.0	30			2042	1.2	37			2104	1.6	49			2057	1.3	40			2133	1.3	40	
3 Sa	0218	3.8	116		18 Su	0212	4.0	122		3 Tu	0223	3.7	113		18 W	0248	3.8	116		3 Th	0231	3.5	107		18 F	0322	3.3	101	
	0841	0.4	12			0857	-0.6	-18			0922	-0.1	-3			1021	-0.7	-21			0944	-0.5	-15			1048	-0.5	-15	
	1457	3.8	116			1526	3.9	119			1557	3.4	104			1658	3.0	91			1629	3.1	94			1717	2.7	82	
	2047	0.9	27			2055	1.3	40			2114	1.4	43			2141	1.7	52			2136	1.3	40			2218	1.3	40	

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
 Heights are referred to mean lower low water which is the chart datum of soundings.

Pensacola, Florida, 2020

Times and Heights of High and Low Waters

July				August				September							
Time		Height		Time		Height		Time		Height		Time		Height	
h	m	ft	cm	h	m	ft	cm	h	m	ft	cm	h	m	ft	cm
1	0710	1.5	46	16	0658	1.5	46	1	0831	1.9	58	16	0816	1.9	58
W	1751	-0.2	-6	Th	1805	-0.1	-3	Sa	1955	-0.3	-9	Su	1927	-0.2	-6
2	0744	1.7	52	17	0739	1.6	49	2	0926	1.9	58	17	0911	1.9	58
Th	1847	-0.4	-12	F	1854	-0.2	-6	Su	2041	-0.2	-6	M	2009	-0.2	-6
3	0829	1.8	55	18	0826	1.7	52	3	1014	1.8	55	18	1004	1.9	58
F	1946	-0.4	-12	Sa	1945	-0.3	-9	M	2117	-0.2	-6	Tu	2046	-0.1	-3
4	0919	1.9	58	19	0916	1.8	55	4	1055	1.7	52	19	1056	1.8	55
Sa	2045	-0.5	-15	Su	2034	-0.4	-12	Tu	2139	0.0	0	W	2117	0.0	0
O				20	1005	1.9	58	5	1129	1.6	49	20	1153	1.6	49
5	1009	1.9	58	M	2119	-0.4	-12	W	2149	0.1	3	Th	2137	0.3	9
Su	2137	-0.4	-12	21	1052	1.9	58	6	1200	1.4	43	21	1300	1.4	43
6	1057	1.8	55	Tu	2157	-0.4	-12	Th	2145	0.3	9	F	2135	0.6	18
M	2220	-0.4	-12	22	1138	1.8	55	7	1228	1.2	37	22	0320	0.8	24
7	1138	1.7	52	W	2230	-0.3	-9	F	2126	0.5	15	Sa	0706	0.7	21
Tu	2252	-0.3	-9	23	1224	1.6	49	8	1256	0.9	27	Sa	1436	1.1	34
8	1212	1.6	49	Th	2253	-0.1	-3	Sa	2046	0.6	18	Su	2039	0.9	27
W	2310	-0.1	-3	24	1313	1.4	43	9	0420	1.0	30	23	0218	1.0	30
9	1237	1.4	43	F	2301	0.2	6	Su	1923	0.7	21	M	1013	0.6	18
Th	2314	0.0	0	25	1412	1.0	30	10	0359	1.1	34	24	0225	1.3	40
10	1247	1.2	37	Sa	2236	0.5	15	M	1422	0.5	15	M	1228	0.4	12
F	2302	0.2	6	26	0546	0.9	27	11	0407	1.3	40	25	0301	1.6	49
11	1121	0.9	27	Su	1216	0.6	18	Tu	1503	0.4	12	Tu	1411	0.2	6
Sa	2229	0.4	12	1619	0.7	21	12	0436	1.4	43	W	1536	0.1	3	
12	0712	0.9	27	2051	0.6	18	W	1555	0.2	6	26	0355	1.7	52	
Su	2117	0.5	15	27	0501	1.1	34	13	0520	1.5	46	F	1536	0.1	3
13	0624	1.1	34	M	1441	0.4	12	Th	1650	0.1	3	27	0502	1.8	55
M	1741	0.4	12	28	0510	1.4	43	14	0617	1.6	49	Th	1649	0.0	0
14	0615	1.2	37	Tu	1553	0.1	3	F	1746	0.0	0	Sa	1848	0.0	0
Tu	1700	0.2	6	29	0545	1.6	49	15	0717	1.8	55	28	0617	1.8	55
15	0629	1.4	43	W	1657	-0.1	-3	Sa	1839	-0.1	-3	F	1754	0.0	0
W	1724	0.0	0	30	0634	1.7	52	16	0833	1.8	55	Su	1758	0.0	0
16	0732	1.8	55	Th	1759	-0.2	-6	Su	1929	0.1	3	29	0758	1.9	58
F	1900	-0.3	-9	31	0732	1.8	55	30	0926	1.8	55	M	1839	0.1	3
17	0829	1.8	55	31	1900	-0.3	-9	31	1958	0.2	6	30	0902	1.9	58
18	0829	1.8	55									W	1914	0.2	6
19	0829	1.8	55									31	1014	1.3	40
20	0829	1.8	55										1757	0.8	24

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Pensacola, Florida, 2020

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h	m	ft	cm	h	m	ft	cm	h	m	ft	cm
1 Th	0005 1.0 30 0508 0.9 27 1124 1.1 34 1719 0.9 27 2327 1.2 37	16 F	0534 0.5 15 1346 1.1 34 1548 1.0 30 2206 1.3 40	1 Su	0757 0.1 3 2220 1.6 49	16 M	0842 -0.4 -12 2237 1.9 58	1 Tu	0857 -0.4 -12 2234 1.5 46	16 W	1011 -0.8 -24 2330 1.6 49
2 F	0638 0.7 21 1312 1.0 30 1603 0.9 27 2316 1.3 40	17 Sa	0658 0.3 9 2220 1.6 49	2 M	0841 0.1 3 2248 1.7 52	17 Tu	0955 -0.5 -15 2328 1.8 55	2 W	0954 -0.4 -12 2316 1.6 49	17 Th	1107 -0.7 -21
3 Sa	0741 0.6 18 2319 1.4 43	18 Su	0815 0.1 3 2253 1.8 55	3 Tu	0935 0.0 0 2324 1.7 52	18 W	1110 -0.4 -12	3 Th	1049 -0.5 -15	18 F	0017 1.4 43 1149 -0.6 -18
4 Su	0835 0.5 15 2333 1.6 49	19 M	0933 0.0 0 2338 1.9 58	4 W	1041 0.0 0	19 Th	0022 1.8 55 1218 -0.4 -12	4 F	0001 1.6 49 1138 -0.5 -15	19 Sa	0057 1.3 40 1217 -0.5 -15
5 M	0928 0.4 12 2358 1.6 49	20 Tu	1057 -0.1 -3	5 Th	0008 1.7 52 1151 -0.1 -3	20 F	0117 1.7 52 1312 -0.3 -9	5 Sa	0045 1.5 46 1219 -0.5 -15	20 Su	0126 1.0 30 1226 -0.3 -9
6 Tu	1032 0.3 9	21 W	0032 1.9 58 1224 -0.1 -3	6 F	0058 1.7 52 1254 -0.1 -3	21 Sa	0207 1.5 46 1349 -0.2 -6	6 Su	0129 1.4 43 1252 -0.4 -12	21 M	0126 0.8 24 1213 -0.1 -3 2210 0.6 18
7 W	0035 1.7 52 1152 0.3 9	22 Th	0133 1.9 58 1343 -0.1 -3	7 Sa	0153 1.7 52 1345 -0.2 -6	22 Su	0248 1.3 40 1408 0.0 0	7 M	0213 1.2 37 1315 -0.2 -6	22 Tu	1130 0.1 3 2004 0.6 18
8 Th	0123 1.7 52 1317 0.2 6	23 F	0240 1.8 55 1447 0.0 0	8 Su	0251 1.6 49 1426 -0.1 -3	23 M	0309 1.0 30 1405 0.2 6 2318 0.8 24	8 Tu	0259 0.9 27 1323 0.0 0 2207 0.6 18	23 W	0933 0.1 3 1925 0.8 24
9 F	0224 1.8 55 1429 0.1 3	24 Sa	0352 1.7 52 1532 0.1 3	9 M	0357 1.5 46 1458 0.0 0	24 Tu	1334 0.3 9 2128 0.9 27	9 W	0307 0.5 15 0455 0.6 18 1258 0.2 6 2018 0.7 21	24 Th	0539 -0.1 -3 1918 0.9 27
10 Sa	0335 1.8 55 1526 0.1 3	25 Su	0506 1.5 46 1600 0.2 6	10 Tu	0525 1.2 37 1519 0.2 6	25 W	1210 0.4 12 2049 1.0 30	10 Th	0416 0.2 6 1947 1.0 30	25 F	0542 -0.3 -9 1929 1.1 34
11 Su	0452 1.8 55 1613 0.1 3	26 M	0621 1.3 40 1609 0.4 12	11 W	0734 1.0 30 1518 0.5 15 2149 0.9 27	26 Th	0559 0.2 6 2037 1.1 34	11 F	0507 -0.2 -6 1951 1.2 37	26 Sa	0608 -0.4 -12 1953 1.2 37
12 M	0612 1.7 52 1651 0.2 6	27 Tu	0744 1.1 34 1555 0.6 18 2300 1.0 30	12 Th	0412 0.5 15 1031 0.8 24 1424 0.7 21 2103 1.1 34	27 F	0621 0.0 0 2042 1.3 40	12 Sa	0600 -0.4 -12 2018 1.4 43	27 Su	0645 -0.5 -15 2026 1.2 37
13 Tu	0735 1.6 49 1721 0.3 9	28 W	0439 0.8 24 0927 0.9 27 1515 0.7 21 2210 1.1 34	13 F	0528 0.2 6 2057 1.4 43	28 Sa	0649 -0.1 -3 2057 1.4 43	13 Su	0659 -0.6 -18 2059 1.6 49	28 M	0729 -0.6 -18 2106 1.3 40
14 W	0905 1.4 43 1738 0.6 18 2347 0.9 27	29 Th	0553 0.6 18 2152 1.3 40	14 Sa	0631 -0.1 -3 2116 1.6 49	29 Su	0724 -0.2 -6 2122 1.5 46	14 M	0801 -0.7 -21 2147 1.6 49	29 Tu	0819 -0.7 -21 2150 1.4 43
15 Th	0333 0.8 24 1053 1.2 37 1727 0.9 27 2227 1.0 30	30 F	0640 0.4 12 2151 1.4 43	15 Su	0735 -0.3 -9 2151 1.8 55	30 M	0806 -0.3 -9 2155 1.5 46	15 Tu	0907 -0.8 -24 2239 1.6 49	30 W	0909 -0.7 -21 2234 1.4 43
		31 Sa	0719 0.3 9 2201 1.5 46							31 Th	0954 -0.8 -24 2317 1.4 43

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Dauphin Island, Alabama, 2020

Times and Heights of High and Low Waters

January				February				March																					
Time	Height			Time	Height			Time	Height			Time	Height																
	<small>h</small>	<small>m</small>	<small>ft</small>	<small>cm</small>		<small>h</small>	<small>m</small>	<small>ft</small>	<small>cm</small>		<small>h</small>	<small>m</small>	<small>ft</small>	<small>cm</small>		<small>h</small>	<small>m</small>	<small>ft</small>	<small>cm</small>										
1 W	0027	0.7	21		16 Th	0050	0.5	15		1 Sa	0437	-0.1	-3		16 Su	0337	-0.4	-12		1 Su	0137	-0.1	-3		16 M	0250	-0.3	-9	
	1143	-0.1	-3			1105	0.0	0			1654	0.6	18			1633	1.0	30			1457	0.9	27			1537	1.2	37	
	2337	0.5	15			2007	0.3	9																					
2 Th	1056	0.0	0		17 F	0823	0.1	3		2 Su	0400	-0.2	-6		17 M	0434	-0.5	-15		2 M	0227	-0.3	-9		17 Tu	0400	-0.3	-9	
	2023	0.5	15			1747	0.5	15			1710	0.8	24			1728	1.1	34			1542	1.0	30			1647	1.2	37	
3 F	0932	0.0	0		18 Sa	0507	-0.2	-6		3 M	0421	-0.4	-12		18 Tu	0534	-0.5	-15		3 Tu	0324	-0.4	-12		18 W	0508	-0.3	-9	
	1900	0.6	18			1745	0.8	24			1739	0.9	27			1825	1.1	34			1637	1.1	34			1759	1.1	34	
4 Sa	0638	0.0	0		19 Su	0512	-0.4	-12		4 Tu	0501	-0.5	-15		19 W	0636	-0.6	-18		4 W	0425	-0.5	-15		19 Th	0611	-0.2	-6	
	1840	0.7	21			1813	1.0	30			1819	1.1	34			1923	1.1	34			1738	1.2	37			1907	1.1	34	
5 Su	0533	-0.2	-6		20 M	0552	-0.6	-18		5 W	0553	-0.6	-18		20 Th	0737	-0.5	-15		5 Th	0529	-0.5	-15		20 F	0705	-0.1	-3	
	1846	0.9	27			1851	1.1	34			1905	1.2	37			2017	1.1	34			1840	1.3	40			2008	1.0	30	
6 M	0543	-0.4	-12		21 Tu	0641	-0.7	-21		6 Th	0651	-0.7	-21		21 F	0832	-0.5	-15		6 F	0631	-0.6	-18		21 Sa	0749	0.0	0	
	1905	1.1	34			1935	1.2	37			1956	1.3	40			2107	1.0	30			1942	1.3	40			2102	0.9	27	
7 Tu	0615	-0.5	-15		22 W	0736	-0.7	-21		7 F	0751	-0.8	-24		22 Sa	0917	-0.4	-12		7 Sa	0732	-0.5	-15		22 Su	0812	0.1	3	
	1934	1.2	37			2022	1.2	37			2048	1.3	40			2151	0.9	27			2043	1.2	37			2154	0.8	24	
8 W	0659	-0.7	-21		23 Th	0833	-0.7	-21		8 Sa	0850	-0.8	-24		23 Su	0949	-0.3	-9		8 Su	0830	-0.4	-12		23 M	0734	0.2	6	
	2012	1.3	40			2108	1.2	37			2140	1.3	40			2230	0.8	24			2144	1.1	34			2250	0.6	18	
9 Th	0753	-0.8	-24		24 F	0926	-0.6	-18		9 Su	0945	-0.7	-21		24 M	0959	-0.1	-3		9 M	0928	-0.2	-6		24 Tu	0603	0.4	12	
	2054	1.4	43			2152	1.1	34			2231	1.2	37			2304	0.7	21			2249	0.9	27			1038	0.5	15	
10 F	0851	-0.8	-24		25 Sa	1010	-0.6	-18		10 M	1034	-0.6	-18		25 Tu	0925	0.0	0		10 Tu	1049	0.0	0		25 W	0015	0.5	15	
	2141	1.4	43			2232	1.0	30			2321	1.0	30			2338	0.5	15								0416	0.4	12	
11 Sa	0949	-0.9	-27		26 Su	1043	-0.5	-15		11 Tu	1113	-0.4	-12		26 W	0811	0.2	6		11 W	0008	0.7	21		26 Th	1115	0.8	24	
	2228	1.4	43			2306	0.9	27								1437	0.3	9			1809	0.2	6			2103	0.1	3	
12 Su	1042	-0.8	-24		27 M	1059	-0.4	-12		12 W	0010	0.7	21		27 Th	0016	0.3	9		12 Th	1136	0.6	18		27 F	1141	0.9	27	
	2315	1.3	40			2333	0.7	21			1111	-0.1	-3			0636	0.2	6			2148	0.0	0			2217	0.0	0	
13 M	1127	-0.7	-21		28 Tu	1054	-0.2	-6		13 Th	0058	0.4	12		28 F	1358	0.6	18		13 F	1234	0.9	27		28 Sa	1211	1.0	30	
	2359	1.1	34			2349	0.6	18			0847	0.2	6													2322	-0.1	-3	
14 Tu	1159	-0.5	-15		29 W	1019	-0.1	-3		14 F	0228	0.1	3		29 Sa	0049	0.0	0		14 Sa	0005	-0.1	-3		29 Su	1249	1.1	34	
						2329	0.4	12			1503	0.6	18			1422	0.7	21			1331	1.1	34						
15 W	0036	0.8	24		30 Th	0917	0.0	0		15 Sa	0244	-0.2	-6		15 Su	0134	-0.3	-9		15 Su	0134	-0.3	-9		30 M	0027	-0.2	-6	
	1205	-0.3	-9			1821	0.3	9			1543	0.8	24			1432	1.2	37			1432	1.2	37			1337	1.2	37	
					31 F	0735	0.0	0																	31 Tu	0136	-0.2	-6	
						1701	0.5	15																		1436	1.3	40	

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Dauphin Island, Alabama, 2020

Times and Heights of High and Low Waters

April				May				June																				
Time	Height			Time	Height			Time	Height			Time	Height															
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
1 W	0245	-0.3	-9	40	16 Th	0417	0.0	0	0	1 F	0305	-0.2	-6	40	16 Sa	0242	0.3	9	24	1 M	0058	0.4	12	16 Tu	0719	1.1	34	3
2 Th	0350	-0.3	-9	40	17 F	0458	0.1	3	30	2 Sa	0348	0.0	0	34	17 Su	0153	0.4	12	21	2 Tu	0747	1.0	30	17 W	0730	1.3	40	-3
3 F	0451	-0.3	-9	40	18 Sa	0515	0.2	6	24	3 Su	0414	0.2	6	27	18 M	0012	0.5	15	27	3 W	0755	1.3	40	18 Th	0750	1.4	43	-6
4 Sa	0547	-0.2	-6	37	19 Su	0450	0.4	12	21	4 M	0357	0.4	12	18	19 Tu	0821	1.0	30	6	4 Th	0823	1.5	46	19 F	0817	1.5	46	-9
5 Su	0637	0.0	0	30	20 M	0337	0.5	15	21	5 Tu	0150	0.6	18	24	20 W	0832	1.2	37	0	5 F	0900	1.6	49	20 Sa	0850	1.6	49	-12
6 M	0717	0.2	6	24	21 Tu	0919	0.8	24	9	6 W	0845	1.1	34	0	21 Th	0851	1.3	40	-3	6 Sa	0942	1.7	52	21 Su	0927	1.6	49	-12
7 Tu	0639	0.4	12	15	22 W	0934	1.0	30	3	7 Th	0915	1.4	43	-6	22 F	0916	1.5	46	-6	7 Su	1026	1.7	52	22 M	1009	1.7	52	-12
8 W	0929	0.8	24	3	23 Th	0954	1.2	37	0	8 F	0954	1.5	46	-9	23 Sa	0945	1.5	46	-9	8 M	1113	1.6	49	23 Tu	1053	1.6	49	-12
9 Th	1012	1.1	34	0	24 F	1018	1.3	40	-3	9 Sa	1038	1.6	49	-9	24 Su	1020	1.6	49	-9	9 Tu	1159	1.5	46	24 W	1137	1.6	49	-9
10 F	1059	1.3	40	-6	25 Sa	1047	1.4	43	-3	10 Su	1126	1.6	49	-9	25 M	1100	1.6	49	-9	10 W	0024	-0.2	-6	25 Th	1219	1.4	43	
11 Sa	1150	1.4	43	-6	26 Su	1122	1.4	43	-6	11 M	1216	1.6	49		26 Tu	1145	1.6	49	-9	11 Th	0056	-0.1	-3	26 F	0021	-0.2	-6	37
12 Su	1244	1.4	43		27 M	1205	1.5	46		12 Tu	0045	-0.2	-6	43	27 W	1234	1.5	46		12 F	0107	0.1	3	27 Sa	0035	0.0	0	30
13 M	0102	-0.2	-6	43	28 Tu	0005	-0.2	-6	46	13 W	0142	-0.1	-3	40	28 Th	0051	-0.3	-9	43	13 Sa	0047	0.2	6	28 Su	0009	0.3	9	21
14 Tu	0216	-0.2	-6	40	29 W	0111	-0.2	-6	46	14 Th	0225	0.0	0	34	29 F	0133	-0.2	-6	40	14 Su	0826	0.8	24	29 M	0705	0.9	27	9
15 W	0321	-0.1	-3	37	30 Th	0212	-0.2	-6	43	15 F	0248	0.1	3	30	30 Sa	0201	0.0	0	30	15 M	0727	0.9	27	30 Tu	0639	1.1	34	0
														31 Su	0200	0.2	6	21										

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Dauphin Island, Alabama, 2020

Times and Heights of High and Low Waters

July				August				September																					
Time	Height			Time	Height			Time	Height			Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm										
1 W	0655	1.4	43	-6	16 Th	0639	1.4	43	-6	1 Sa	0759	1.7	52	-6	16 Su	0731	1.7	52	-6	1 Tu	0936	1.5	46	12	16 W	0912	1.6	49	12
	1814	-0.2	-6			1753	-0.2	-6			2011	-0.2	-6			1920	-0.2	-6			2131	0.4	12			2026	0.4	12	
2 Th	0727	1.5	46	-9	17 F	0712	1.5	46	-6	2 Su	0849	1.7	52	-6	17 M	0823	1.7	52	-6	2 W	1020	1.3	40	15	17 Th	1022	1.4	43	21
	1902	-0.3	-9			1838	-0.2	-6			2108	-0.2	-6			2016	-0.2	-6			2142	0.5	15			2059	0.7	21	
3 F	0807	1.7	52	-12	18 Sa	0751	1.6	49	-9	3 M	0937	1.6	49	-3	18 Tu	0914	1.7	52	-3	3 Th	1103	1.2	37	21	18 F	1158	1.1	34	27
	1958	-0.4	-12			1931	-0.3	-9			2156	-0.1	-3			2107	-0.1	-3			2035	0.7	21			1841	0.9	27	30
4 Sa	0851	1.7	52	-12	19 Su	0834	1.7	52	-12	4 Tu	1021	1.5	46	0	19 W	1005	1.6	49	3	4 F	1153	1.0	30	24	19 Sa	0649	0.7	21	40
	2057	-0.4	-12			2026	-0.4	-12			2232	0.0	0			2154	0.1	3			1847	0.8	24			2309	1.3	40	
5 Su	0937	1.7	52	-12	20 M	0919	1.7	52	-12	5 W	1059	1.4	43	6	20 Th	1057	1.4	43	9	5 Sa	0023	0.9	27	21	20 Su	0939	0.5	15	
	2154	-0.4	-12			2120	-0.4	-12			2251	0.2	6			2229	0.3	9			0730	0.7	24	21					
6 M	1023	1.6	49	-9	21 Tu	1005	1.7	52	-9	6 Th	1131	1.2	37	9	21 F	1151	1.2	37	18	6 Su	0039	1.1	34	18	21 M	0000	1.5	46	9
	2245	-0.3	-9			2210	-0.3	-9			2239	0.3	9			2216	0.6	18			1030	0.6	18			1131	0.3	9	
7 Tu	1105	1.5	46	-6	22 W	1051	1.6	49	-6	7 F	1155	1.0	30	15	22 Sa	1301	0.9	27	24	7 M	0105	1.2	37	15	22 Tu	0055	1.7	52	6
	2324	-0.2	-6			2252	-0.2	-6			2143	0.5	15			1931	0.8	24			1157	0.5	15			1256	0.2	6	
8 W	1143	1.3	40	0	23 Th	1134	1.4	43	0	8 Sa	1148	0.8	24	18	23 Su	0147	0.9	27	18	8 Tu	0137	1.4	43	12	23 W	0154	1.8	55	3
	2348	0.0	0			2323	0.0	0			2009	0.6	18			1136	0.6	18			1255	0.4	12			1412	0.1	3	
9 Th	1213	1.2	37	3	24 F	1212	1.2	37	6	9 Su	0411	0.8	24	18	24 M	0210	1.2	37	9	9 W	0216	1.5	46	9	24 Th	0259	1.8	55	3
	2350	0.1	3			2326	0.2	6			1728	0.6	18			1342	0.3	9			1350	0.3	9			1524	0.1	3	
10 F	1227	1.0	30	9	25 Sa	1231	0.9	27	12	10 M	0349	1.0	30	12	25 Tu	0256	1.4	43	6	10 Th	0304	1.5	46	6	25 F	0410	1.8	55	6
	2318	0.3	9			2223	0.4	12			1459	0.4	12			1449	0.2	6			1448	0.2	6			1632	0.2	6	
11 Sa	1129	0.8	24	12	26 Su	0656	0.7	21	15	11 Tu	0402	1.2	37	9	26 W	0350	1.6	49	0	11 F	0359	1.6	49	3	26 Sa	0522	1.7	52	6
	2209	0.4	12			1923	0.5	15			1512	0.3	9			1553	0.0	0			1549	0.1	3			1733	0.2	6	
12 Su	0707	0.8	24	12	27 M	0458	0.9	27	9	12 W	0430	1.3	40	3	27 Th	0449	1.7	52	0	12 Sa	0501	1.7	52	3	27 Su	0633	1.6	49	12
	2009	0.4	12			1611	0.3	9			1547	0.1	3			1657	0.0	0			1650	0.1	3			1826	0.4	12	
13 M	0605	0.9	27	9	28 Tu	0503	1.2	37	0	13 Th	0506	1.4	43	0	28 F	0551	1.7	52	0	13 Su	0605	1.7	52	3	28 M	0738	1.5	46	15
	1717	0.3	9			1631	0.0	0			1632	0.0	0			1803	0.0	0			1749	0.1	3			1905	0.5	15	
14 Tu	0559	1.1	34	3	29 W	0536	1.4	43	-3	14 F	0550	1.5	46	-3	29 Sa	0654	1.7	52	0	14 M	0708	1.7	52	3	29 Tu	0838	1.4	43	21
	1657	0.1	3			1717	-0.1	-3			1724	-0.1	-3			1907	0.0	0			1845	0.1	3			1912	0.7	21	
15 W	0614	1.3	40	0	30 Th	0619	1.6	49	-6	15 Sa	0639	1.6	49	-3	30 Su	0753	1.7	52	3	15 Tu	0809	1.7	52	6	30 W	0938	1.2	37	24
	1718	0.0	0			1811	-0.2	-6			1822	-0.1	-3			2005	0.1	3			1937	0.2	6			1807	0.8	24	27
					31 F	0708	1.7	52	-6					31 M	0847	1.6	49	6											
						1911	-0.2	-6							2054	0.2	6												

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Mobile, Alabama, 2020

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
1 W 0227 1214 2252 0.8 -0.2 0.6 24 -6 18	16 Th 0257 1143 1932 0.6 0.0 0.5 18 0 15	1 Sa 0752 1752 0.1 1.0 3 30	16 Su 0543 1740 -0.3 1.4 -9 43	1 Su 0309 1639 0.1 1.3 3 40	16 M 0457 1657 -0.1 1.7 -3 52						
2 Th 1145 2040 0.0 0.6 0 18	17 F 1013 1846 0.1 0.8 3 24	2 Su 0619 1814 -0.1 1.1 -3 34	17 M 0639 1825 -0.4 1.5 -12 46	2 M 0440 1716 0.0 1.4 0 43	17 Tu 0604 1749 -0.2 1.6 -6 49						
3 F 1034 1938 0.0 0.8 0 24	18 Sa 0651 1842 -0.1 1.0 -3 30	3 M 0637 1849 -0.3 1.3 -9 40	18 Tu 0727 1920 -0.5 1.5 -15 46	3 Tu 0547 1801 -0.2 1.5 -6 46	18 W 0657 1847 -0.2 1.6 -6 49						
4 Sa 0824 1932 0.0 0.9 0 27	19 Su 0710 1910 -0.4 1.2 -12 37	4 Tu 0713 1936 -0.5 1.4 -15 43	19 W 0809 2024 -0.6 1.5 -18 46	4 W 0640 1858 -0.4 1.6 -12 49	19 Th 0737 1956 -0.2 1.5 -6 46						
5 Su 0728 1950 -0.2 1.1 -6 34	20 M 0745 1953 -0.6 1.4 -18 43	5 W 0752 2033 -0.7 1.5 -21 46	20 Th 0845 2131 -0.6 1.4 -18 43	5 Th 0726 2008 -0.5 1.6 -15 49	20 F 0807 2114 -0.1 1.4 -3 43						
6 M 0738 2021 -0.4 1.2 -12 37	21 Tu 0824 2044 -0.7 1.4 -21 43	6 Th 0833 2136 -0.8 1.5 -24 46	21 F 0916 2230 -0.5 1.4 -15 43	6 F 0808 2126 -0.6 1.6 -18 49	21 Sa 0826 2228 0.0 1.3 0 40						
7 Tu 0807 2102 -0.6 1.4 -18 43	22 W 0903 2139 -0.8 1.4 -24 43	7 F 0914 2236 -0.9 1.6 -27 49	22 Sa 0937 2320 -0.4 1.3 -12 40	7 Sa 0846 2240 -0.5 1.6 -15 49	22 Su 0830 2330 0.2 1.1 6 34						
8 W 0844 2149 -0.8 1.5 -24 46	23 Th 0941 2232 -0.8 1.4 -24 43	8 Sa 0954 2332 -0.9 1.5 -27 46	23 Su 0947 -0.3 -9	8 Su 0920 2350 -0.4 1.5 -12 46	23 M 0819 1546 1910 0.3 0.8 0.7 9 24 21						
9 Th 0927 2238 -0.9 1.5 -27 46	24 F 1015 2320 -0.8 1.4 -24 43	9 Su 1031 -0.8 -24	24 M 0005 0943 1.1 -0.1 34 -3	9 M 0945 -0.1 -3	24 Tu 0034 0804 1450 2016 1.0 0.5 0.9 0.6 30 15 27 18						
10 F 1011 2328 -1.0 1.6 -30 49	25 Sa 1042 -0.7 -21	10 M 0027 1100 1.4 -0.6 43 -18	25 Tu 0050 0933 1733 2021 1.0 0.1 0.6 0.5 30 3 18 15	10 Tu 0108 0946 1634 1933 1.2 0.2 0.6 0.5 37 6 18 15	25 W 0203 0749 1359 2107 0.9 0.6 1.0 0.5 27 18 30 15						
11 Sa 1056 -1.0 -30	26 Su 0004 1059 1.3 -0.6 40 -18	11 Tu 0122 1110 1.2 -0.3 37 -9	26 W 0139 0920 1637 2133 0.8 0.2 0.7 0.5 24 6 21 15	11 W 0257 0917 1536 2106 1.0 0.5 0.8 0.4 30 15 24 12	26 Th 0413 0728 1351 2153 0.8 0.7 1.2 0.4 24 21 37 12						
12 Su 0017 1137 1.5 -0.9 46 -27	27 M 0044 1103 1.1 -0.4 34 -12	12 W 0226 1046 1801 2130 0.9 0.0 0.5 0.4 27 0 15 12	27 Th 0244 0904 1559 2246 0.6 0.3 0.8 0.4 18 9 24 12	12 Th 0503 0839 1445 2235 0.8 0.7 1.0 0.2 24 21 30 6	27 F 1406 2244 1.4 0.3 43 9						
13 M 0105 1211 1.4 -0.8 43 -24	28 Tu 0121 1056 1.0 -0.3 30 -9	13 Th 0355 1009 1712 2353 0.6 0.2 0.7 0.2 18 6 21 6	28 F 0424 0831 1556 0.5 0.4 1.0 15 12 30	13 F 1452 1.3 40	28 Sa 1432 1.5 46						
14 Tu 0151 1229 1.2 -0.5 37 -15	29 W 0155 1043 1911 2208 0.8 -0.1 0.5 0.4 24 -3 15 12	14 F 1649 1.0 30	29 Sa 0039 1612 0.2 1.2 6 37	14 Sa 0128 1526 0.1 1.5 3 46	29 Su 0005 1506 0.2 1.6 6 49						
15 W 0233 1218 0.9 -0.2 27 -6	30 Th 0219 1021 1807 0.6 0.0 0.6 18 0 18	15 Sa 0432 1705 0.0 1.2 0 37		15 Su 0332 1609 0.0 1.6 0 49	30 M 0214 1546 0.1 1.7 3 52						
	31 F 0939 1745 0.1 0.8 3 24				31 Tu 0345 1633 0.0 1.8 0 55						

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Mobile, Alabama, 2020

Times and Heights of High and Low Waters

April				May				June															
Time	Height			Time	Height			Time	Height			Time	Height										
	h	m	ft		h	m	ft		h	m	ft		h	m	ft		h	m	ft				
1 W	0458	-0.1	-3	16 Th	0604	0.1	3	1 F	0458	0.0	0	16 Sa	0427	0.5	15	1 M	0311	0.8	24	16 Tu	0840	1.4	43
	1724	1.8	55		1805	1.6	49		1744	1.7	52		1730	1.2	37		1100	1.1	34		2005	0.4	12
2 Th	0557	-0.2	-6	17 F	0639	0.2	6	2 Sa	0543	0.1	3	17 Su	0402	0.7	21	2 Tu	1002	1.3	40	17 W	0857	1.6	49
	1823	1.8	55		1901	1.4	43		1845	1.5	46		1225	1.1	34		2003	0.4	12		2019	0.3	9
3 F	0646	-0.2	-6	18 Sa	0657	0.4	12	3 Su	0616	0.4	12	18 M	0319	0.8	24	3 W	0945	1.6	49	18 Th	0930	1.7	52
	1935	1.7	52		2025	1.2	37		2148	1.2	37		1130	1.2	37		2040	0.1	3		2048	0.1	3
4 Sa	0727	-0.1	-3	19 Su	0651	0.5	15	4 M	0619	0.6	18	19 Tu	1042	1.4	43	4 Th	1011	1.8	55	19 F	1010	1.9	58
	2116	1.6	49		1407	1.0	30		1249	1.0	30		2014	0.5	15		2126	0.0	0		2125	0.0	0
5 Su	0800	0.0	0	20 M	0626	0.7	21	5 Tu	0057	1.1	34	20 W	1037	1.5	46	5 F	1051	2.0	61	20 Sa	1054	2.0	61
	2307	1.4	43		1318	1.1	34		0537	0.9	27		2040	0.3	9		2218	-0.1	-3		2207	-0.1	-3
6 M	0820	0.3	9	21 Tu	0106	0.9	27	6 W	1114	1.4	43	21 Th	1055	1.7	52	6 Sa	1136	2.1	64	21 Su	1139	2.0	61
	1510	0.8	24		0555	0.8	24		2040	0.3	9		2112	0.2	6		2315	-0.2	-6		2253	-0.2	-6
7 Tu	0101	1.2	37	22 W	1206	1.4	43	7 Th	1124	1.7	52	22 F	1123	1.8	55	7 Su	1225	2.1	64	22 M	1227	2.1	64
	0809	0.6	18		2051	0.4	12		2140	0.1	3		2151	0.1	3						2340	-0.2	-6
8 W	0319	1.1	34	23 Th	1215	1.5	46	8 F	1157	1.9	58	23 Sa	1158	1.9	58	8 M	0012	-0.2	-6	23 Tu	1315	2.1	64
	0733	0.9	27		2128	0.3	9		2249	0.0	0		2239	0.0	0		1314	2.1	64				
9 Th	1244	1.4	43	24 F	1237	1.7	52	9 Sa	1239	2.0	61	24 Su	1237	2.0	61	9 Tu	0101	-0.1	-3	24 W	0024	-0.2	-6
	2157	0.2	6		2208	0.2	6					2338	0.0	0		1404	2.0	61		1403	2.1	64	
10 F	1312	1.7	52	25 Sa	1307	1.8	55	10 Su	0010	-0.1	-3	25 M	1321	2.0	61	10 W	0140	0.0	0	25 Th	0103	-0.1	-3
	2331	0.1	3		2304	0.2	6		1326	2.1	64					1450	1.8	55		1450	1.9	58	
11 Sa	1353	1.8	55	26 Su	1344	1.9	58	11 M	0125	-0.1	-3	26 Tu	0040	-0.1	-3	11 Th	0206	0.2	6	26 F	0131	0.1	3
									1417	2.0	61		1408	2.1	64		1530	1.7	52		1533	1.7	52
12 Su	0134	0.0	0	27 M	0031	0.1	3	12 Tu	0226	0.0	0	27 W	0136	-0.1	-3	12 F	0214	0.3	9	27 Sa	0142	0.3	9
	1441	1.9	58		1426	1.9	58		1508	1.9	58		1456	2.0	61		1601	1.4	43		1608	1.4	43
13 M	0300	0.0	0	28 Tu	0157	0.0	0	13 W	0318	0.1	3	28 Th	0224	-0.1	-3	13 Sa	0203	0.5	15	28 Su	0126	0.6	18
	1532	1.9	58		1513	2.0	61		1555	1.8	55		1542	1.9	58		1613	1.2	37		0955	1.0	30
14 Tu	0412	0.0	0	29 W	0305	0.0	0	14 Th	0359	0.2	6	29 F	0304	0.0	0	14 Su	0135	0.7	21	29 M	0044	0.8	24
	1624	1.8	55		1603	2.0	61		1637	1.6	49		1625	1.7	52		1056	1.1	34		0817	1.2	37
15 W	0515	0.0	0	30 Th	0405	0.0	0	15 F	0426	0.3	9	30 Sa	0332	0.2	6	15 M	2333	0.8	24	30 Tu	0738	1.5	46
	1715	1.7	52		1653	1.9	58		1712	1.4	43		1702	1.5	46		0912	1.2	37		1942	0.4	12
				31 O				31 Su															

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Mobile, Alabama, 2020

Times and Heights of High and Low Waters

July				August				September																			
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height														
	h	m	ft	cm	h	m	ft	cm	h	m	ft	cm	h	m	ft	cm											
1 W	0801	1.7	52	3	16 Th	0747	1.8	55	6	1 Sa	0928	2.0	61	0	16 Su	0922	2.0	61	3	1 Tu	1141	1.8	55	16 W	1201	1.8	55
	2015	0.1	-3			2006	0.2	-6			2134	0.0	0			2059	0.1	3			2143	0.6	18		2120	0.6	18
2 Th	0847	1.9	58	-3	17 F	0841	1.9	58	3	2 Su	1035	2.0	61	0	17 M	1035	2.1	64	0	2 W	1238	1.7	52	17 Th	1336	1.7	52
	2056	-0.1	-3			2042	0.1	-3			2212	0.0	0			2137	0.0	0			2135	0.7	21		2125	0.9	27
3 F	0941	2.0	61	-3	18 Sa	0941	2.0	61	0	3 M	1133	2.0	61	3	18 Tu	1139	2.1	64	3	3 Th	0446	1.1	34	18 F	0306	1.1	34
	2141	-0.1	-3			2121	0.0	0			2243	0.1	3			2212	0.1	3			0717	1.0	30		0735	0.9	27
4 Sa	1037	2.1	64	-6	19 Su	1040	2.0	61	-3	4 Tu	1225	1.9	58	9	19 W	1241	2.0	61	9	4 F	0357	1.2	37	19 Sa	0147	1.3	40
	2227	-0.2	-6			2201	-0.1	-3			2303	0.3	9			2241	0.3	9			0826	1.0	30		0849	0.7	21
5 Su	1131	2.1	64	-3	20 M	1135	2.1	64	-3	5 W	1313	1.8	55	12	20 Th	1351	1.8	55	18	5 Sa	0249	1.3	40	20 Su	0117	1.6	49
	2311	-0.1	-3			2242	-0.1	-3			2305	0.4	12			2255	0.6	18			0921	0.9	27		0959	0.5	15
6 M	1222	2.0	61	-3	21 Tu	1228	2.1	64	-3	6 Th	1402	1.6	49	18	21 F	1515	1.6	49	24	6 Su	0233	1.5	46	21 M	0145	1.9	58
	2350	-0.1	-3			2320	-0.1	-3			2253	0.6	18			2236	0.8	24			1012	0.8	24		1124	0.4	12
7 Tu	1311	2.0	61		22 W	1320	2.1	64	0	7 F	1452	1.5	46	24	22 Sa	0449	1.1	34	27	7 M	0247	1.7	52	22 Tu	0228	2.0	61
						2352	0.0	0			2236	0.8	24			0908	0.9	27			1107	0.7	21		1348	0.4	12
8 W	0019	0.1	3	55	23 Th	1414	1.9	58		8 Sa	0534	1.1	34	30	23 Su	0353	1.3	40	24	8 Tu	0313	1.8	55	23 W	0318	2.1	64
	1357	1.8	55								0944	1.0	30			1036	0.8	24			1228	0.7	21		1542	0.3	9
9 Th	0032	0.2	6	52	24 F	0013	0.2	6	52	9 Su	0445	1.3	40	27	24 M	0341	1.6	49	21	9 W	0347	1.9	58	24 Th	0412	2.1	64
	1439	1.7	52			1508	1.7	52			1110	0.9	27			1239	0.7	21			1447	0.6	18		1710	0.3	9
10 F	0028	0.4	12	46	25 Sa	0007	0.5	15	43	10 M	0439	1.5	46	24	25 Tu	0409	1.9	58	15	10 Th	0428	1.9	58	25 F	0508	2.0	61
	1516	1.5	46			1604	1.4	43			1315	0.8	24			1612	0.5	15			1645	0.5	15		1817	0.3	9
11 Sa	0011	0.6	18	37	26 Su	0622	1.1	34	27	11 Tu	0456	1.6	49	21	26 W	0451	2.0	61	12	11 F	0517	2.0	61	26 Sa	0609	1.9	58
	1546	1.2	37			1125	0.9	27			1623	0.7	21			1752	0.4	12			1802	0.4	12		1908	0.4	12
12 Su	0705	1.1	34	24	27 M	0541	1.4	43	21	12 W	0525	1.8	55	15	27 Th	0541	2.1	64	9	12 Sa	0615	2.0	61	27 Su	0720	1.8	55
	2220	0.8	24			1745	0.7	21			1804	0.5	15			1858	0.3	9			1856	0.3	9		1944	0.5	15
13 M	0628	1.3	40	21	28 Tu	0548	1.6	49	12	13 Th	0604	1.8	55	12	28 F	0640	2.0	61	6	13 Su	0729	2.0	61	28 M	0858	1.6	49
	2011	0.7	21			1835	0.4	12			1856	0.4	12			1949	0.2	6			1940	0.2	6		2006	0.6	18
14 Tu	0637	1.5	46	15	29 W	0622	1.8	55	6	14 F	0656	1.9	58	6	29 Sa	0753	2.0	61	6	14 M	0903	2.0	61	29 Tu	1047	1.5	46
	1922	0.5	15			1923	0.2	6			1939	0.2	6			2031	0.2	6			2019	0.3	9		2005	0.8	24
15 W	0705	1.6	49	9	30 Th	0712	2.0	61	3	15 Sa	0804	2.0	61	3	30 Su	0919	1.9	58	9	15 Tu	1036	1.9	58	30 W	0241	1.2	37
	1935	0.3	9			2009	0.1	3			2020	0.1	3			2106	0.3	9			2054	0.4	12		0558	1.1	34
					31 F	0816	2.0	61	0					31 M	1038	1.9	58	12							1216	1.4	43
						2053	0.0	0							2132	0.4	12							1943	0.9	27	

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

South Pass, Louisiana, 2020

Times and Heights of High and Low Waters

January				February				March																					
Time	Height			Time	Height			Time	Height			Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm										
1 W	0939	-0.1	-3	15	16 Th	0903	0.0	0	6	1 Sa	0242	-0.1	-3	12	16 Su	0124	-0.5	-15	27	1 Su	1235	0.8	24	16 M	0041	-0.4	-12	37	
	2227	0.5				1702	0.2			2 Su	0201	-0.3	-9	18	17 M	0220	-0.7	-21	30	2 M	0030	-0.3	-9	27	17 Tu	0143	-0.4	-12	37
2 Th	0910	0.0	0	12	17 F	0334	0.0	0	12	3 M	0223	-0.5	-15	21	18 Tu	0311	-0.7	-21	30	3 Tu	0122	-0.4	-12	30	18 W	0236	-0.4	-12	34
	1917	0.4				1536	0.4			4 Tu	0258	-0.6	-18	27	19 W	0358	-0.7	-21	30	4 W	0212	-0.5	-15	34	19 Th	0322	-0.3	-9	30
3 F	0722	0.1	3	12	18 Sa	0211	-0.3	-9	18	5 W	0338	-0.8	-24	30	20 Th	0441	-0.7	-21	30	5 Th	0302	-0.6	-18	34	20 F	0401	-0.2	-6	30
	1704	0.4				1540	0.6			6 M	0422	-0.9	-27	34	21 F	0519	-0.6	-18	27	6 F	0351	-0.6	-18	37	21 Sa	0431	0.0	0	27
4 Sa	0348	0.0	0	18	19 Su	0249	-0.6	-18	24	7 Th	0508	-0.9	-27	34	22 Sa	0552	-0.5	-15	24	7 Sa	0440	-0.6	-18	34	22 Su	0450	0.1	3	24
	1636	0.6				1613	0.8			8 W	0555	-0.9	-27	34	23 Su	0617	-0.3	-9	21	8 Su	0527	-0.4	-12	30	23 M	0453	0.2	6	12
5 Su	0318	-0.2	-6	21	20 M	0333	-0.7	-21	30	9 Su	0642	-0.8	-24	30	24 M	0633	-0.2	-6	18	9 M	0610	-0.2	-6	27	24 Tu	0433	0.4	12	15
	1645	0.7				1658	1.0			10 M	0726	-0.6	-18	24	25 Tu	0635	-0.1	-3	15	10 Tu	0640	0.0	0	21	25 W	0952	0.5	15	9
6 M	0336	-0.4	-12	27	21 Tu	0417	-0.9	-27	30	11 Tu	0802	-0.4	-12	18	26 W	0612	0.1	3	6	11 W	0622	0.3	9	12	26 Th	1128	0.4	12	9
	1711	0.9				1746	1.0			12 W	0811	-0.1	-3	9	27 Th	1128	0.3	9	3	12 Th	1006	0.7	21	-3	27 F	1542	0.3	9	18
7 Tu	0406	-0.6	-18	30	22 W	0501	-0.9	-27	34	13 Th	0023	0.3	9	3	28 F	0026	0.2	6	3	13 F	1041	0.9	27	-6	28 Sa	2121	0.7	21	0
	1747	1.0				1834	1.1			14 F	00650	0.1	3	6	29 Sa	0309	0.1	3	15	14 Sa	2154	-0.2	-6	0	29 Su	0927	0.6	18	9
8 W	0444	-0.7	-21	34	23 Th	0543	-0.9	-27	30	15 Sa	0015	-0.3	-9	21	30 Su	1158	0.6	18	-3	15 Su	1129	1.1	34	-12	30 M	0433	0.4	12	15
	1828	1.1				1920	1.0			16 Su	00650	0.1	3	6	31 F	1223	1.2	37		16 M	0622	0.3	9	12	31 Tu	0952	0.5	15	9
9 Th	0525	-0.8	-24	37	24 F	0622	-0.8	-24	30	17 Su	00650	0.1	3	6						17 Tu	1012	0.4	12	3					
	1912	1.2				2002	1.0			18 M	00650	0.1	3	6						18 W	1728	0.1	3	3					
10 F	0611	-0.9	-27	37	25 Sa	0657	-0.7	-21	27	19 W	00650	0.1	3	6						19 Th	1844	0.1	3	9					
	1959	1.2				2041	0.9			20 Th	00650	0.1	3	6						20 F									
11 Sa	0658	-0.9	-27	37	26 Su	0728	-0.6	-18	24	21 M	00650	0.1	3	6						21 Sa									
	2046	1.2				2117	0.8			22 Tu	00650	0.1	3	6						22 Su									
12 Su	0746	-0.8	-24	34	27 M	0752	-0.5	-15	18	23 W	00650	0.1	3	6						23 M									
	2134	1.1				2149	0.6			24 Th	00650	0.1	3	6						24 Tu									
13 M	0832	-0.7	-21	27	28 Tu	0806	-0.3	-9	15	25 W	00650	0.1	3	6						25 W									
	2220	0.9				2217	0.5			26 Th	00650	0.1	3	6						26 Th									
14 Tu	0912	-0.5	-15	21	29 W	0801	-0.2	-6	9	27 Th	00650	0.1	3	6						27 Th									
	2304	0.7				2234	0.3			28 F	00650	0.1	3	6						28 F									
15 W	0933	-0.3	-9	12	30 Th	0720	-0.1	-3	3	29 Sa	00650	0.1	3	6						29 Sa									
	2332	0.4				1557	0.1			30 Su	00650	0.1	3	6						30 Su									
					31 F	0543	0.0	0	9											31 Tu									
						1420	0.3																						

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

South Pass, Louisiana, 2020

Times and Heights of High and Low Waters

April				May				June																				
Time	Height			Time	Height			Time	Height			Time	Height															
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm									
1 W	0028	-0.2	-6	40	16 Th	0142	0.0	0	0	1 F	0036	-0.1	-3	40	16 Sa	0039	0.4	12	24	1 M	0702	0.8	24	16 Tu	0545	1.0	30	3
2 Th	0125	-0.3	-9	40	17 F	0220	0.1	3	30	2 Sa	0124	0.0	0	34	17 Su	0025	0.5	15	24	2 Tu	0617	1.1	34	17 W	0550	1.2	37	0
3 F	0219	-0.3	-9	40	18 Sa	0245	0.3	9	27	3 Su	0202	0.2	6	27	18 M	0026	0.8	24	15	3 W	0616	1.3	40	18 Th	0610	1.3	40	-6
4 Sa	0309	-0.2	-6	37	19 Su	0252	0.4	12	21	4 M	0219	0.5	15	24	19 Tu	0028	0.8	24	18	4 Th	0640	1.5	46	19 F	0638	1.4	43	-9
5 Su	0354	0.0	0	34	20 M	0231	0.6	18	24	5 Tu	0134	0.7	21	27	20 W	0028	0.5	15	18	5 F	0716	1.7	52	20 Sa	0711	1.5	46	-12
6 M	0430	0.2	6	27	21 Tu	0116	0.6	18	27	6 W	0715	1.2	37	0	21 Th	0028	0.6	18	15	6 Sa	0756	1.8	55	21 Su	0748	1.6	49	-12
7 Tu	0439	0.5	15	18	22 W	0801	1.0	30	9	7 Th	0735	1.5	46	-6	22 F	0734	1.5	46	-3	7 Su	0839	1.7	52	22 M	0827	1.6	49	-12
8 W	0005	0.8	24	21	23 Th	0812	1.2	37	6	8 F	0810	1.6	49	-9	23 Sa	0803	1.5	46	-6	8 M	0920	1.7	52	23 Tu	0908	1.6	49	-12
9 Th	0838	1.2	37	-3	24 F	0833	1.3	40	3	9 Sa	0851	1.7	52	-9	24 Su	0837	1.6	49	-6	9 Tu	1000	1.5	46	24 W	0949	1.5	46	-9
10 F	0915	1.4	43	-6	25 Sa	0900	1.4	43	0	10 Su	0935	1.8	55	-9	25 M	0913	1.6	49	-9	10 W	1034	1.4	43	25 Th	1029	1.4	43	-6
11 Sa	0959	1.5	46	-9	26 Su	0933	1.5	46	-3	11 M	1019	1.7	52	-6	26 Tu	0953	1.6	49	-9	11 Th	1059	1.2	37	26 F	1104	1.2	37	0
12 Su	1047	1.6	49	-9	27 M	1011	1.5	46	-3	12 Tu	1102	1.6	49	-3	27 W	1036	1.6	49	-6	12 Th	1102	1.0	30	27 Sa	1113	0.9	27	6
13 M	1138	1.5	46	-6	28 Tu	1055	1.6	49	-6	13 W	1143	1.4	43	0	28 Th	1120	1.5	46	-3	13 Sa	0947	0.8	24	28 Su	0726	0.7	21	12
14 Tu	1232	1.4	43		29 W	1145	1.5	46	-3	14 Th	1216	1.2	37		29 F	1203	1.3	40	0	14 Su	0721	0.8	24	29 M	0527	0.8	24	6
15 W	0054	-0.1	-3	40	30 Th	1242	1.5	46		15 F	0024	0.2	6	30	30 Sa	1234	1.0	30		15 M	0607	0.9	27	30 Tu	0459	1.1	34	-3
														31 Su	0001	0.3	9	24										

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

South Pass, Louisiana, 2020

Times and Heights of High and Low Waters

July				August				September																							
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height																		
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm																	
1 W	0511	1.3	40	-9	16 Th	0457	1.3	40	-6	1 Sa	0615	1.7	52	-12	16 Su	0556	1.7	52	-6	1 Tu	0755	1.5	46	16 W	0757	1.7	52				
	1604	-0.3	-9			1606	-0.2	-6			1728	-0.4	-12			1654	-0.2	-6			1804	0.4	12		1739	0.5	15				
2 Th	0543	1.5	46	-15	17 F	0534	1.4	43	-9	2 Su	0705	1.6	49	-9	17 M	0650	1.7	52	-6	2 W	0839	1.4	43	17 Th	0913	1.5	46		1804	0.8	24
	1649	-0.5	-15			1641	-0.3	-9			1810	-0.3	-9			1737	-0.2	-6			1818	0.5	15		2315	0.9	27				
3 F	0623	1.6	49	-18	18 Sa	0615	1.5	46	-12	3 M	0751	1.6	49	-6	18 Tu	0744	1.7	52	-3	3 Th	0921	1.3	40	18 F	0221	0.8	24		1048	1.3	40
	1736	-0.6	-18			1719	-0.4	-12			1847	-0.2	-6			1819	-0.1	-3			1813	0.7	21		1744	1.0	30				
4 Sa	0707	1.7	52	-18	19 Su	0658	1.6	49	-12	4 Tu	0832	1.5	46	0	19 W	0838	1.6	49	3	4 F	1006	1.1	34	19 Sa	0508	0.7	21		2144	1.1	34
	1822	-0.6	-18			1759	-0.4	-12			1918	0.0	0			1858	0.1	3			1740	0.8	24		2140	1.4	43				
5 Su	0751	1.7	52	-15	20 M	0743	1.6	49	-12	5 W	0909	1.3	40	3	20 Th	0934	1.5	46	9	5 Sa	0436	0.8	24	20 Su	0720	0.6	18		2256	1.1	34
	1907	-0.5	-15			1841	-0.4	-12			1940	0.1	3			1930	0.3	9			1104	1.0	30		2214	1.6	49				
6 M	0833	1.6	49	-12	21 Tu	0828	1.6	49	-12	6 Th	0941	1.2	37	9	21 F	1036	1.2	37	18	6 Su	0659	0.8	24	21 M	0917	0.4	12		2307	1.2	37
	1948	-0.4	-12			1923	-0.4	-12			1949	0.3	9			1936	0.6	18			2307	1.2	37		2301	1.8	55				
7 Tu	0912	1.5	46	-9	22 W	0912	1.5	46	-9	7 F	1008	1.0	30	12	22 Sa	1202	1.0	30	24	7 M	0930	0.7	21	22 Tu	1053	0.3	9		2334	1.4	43
	2025	-0.3	-9			2002	-0.3	-9			1935	0.4	12			1826	0.8	24			2334	1.4	43		2356	1.9	58				
8 W	0946	1.3	40	-3	23 Th	0957	1.4	43	-3	8 Sa	1022	0.9	27	15	23 Su	0015	0.9	27	18	8 Tu	1113	0.5	15	23 W	1210	0.2	6				
	2053	-0.1	-3			2036	-0.1	-3			1843	0.5	15			0846	0.6	18													
9 Th	1013	1.2	37	3	24 F	1039	1.2	37	6	9 Su	0237	0.8	24	18	24 M	0020	1.2	37	12	9 W	0014	1.5	46	24 Th	0058	1.9	58		1216	0.4	12
	2109	0.1	3			2053	0.2	6			1653	0.6	18			1130	0.4	12			1216	0.4	12		1316	0.2	6				
10 F	1026	1.0	30	6	25 Sa	1111	0.9	27	12	10 M	0150	0.9	27	15	25 Tu	0059	1.4	43	3	10 Th	0104	1.6	49	25 F	0208	1.9	58		1309	0.3	9
	2104	0.2	6			2027	0.4	12			1412	0.5	15			1249	0.1	3			1309	0.3	9		1413	0.2	6				
11 Sa	0953	0.8	24	9	26 Su	0435	0.7	21	15	11 Tu	0200	1.1	34	9	26 W	0153	1.6	49	0	11 F	0205	1.7	52	26 Sa	0327	1.8	55				
	2021	0.3	9			1716	0.5	15			1352	0.3	9			1351	0.0	0			1358	0.2	6		1502	0.3	9				
12 Su	0616	0.7	21	12	27 M	0310	0.9	27	6	12 W	0232	1.2	37	6	27 Th	0255	1.7	52	-3	12 Sa	0314	1.7	52	27 Su	0448	1.7	52				
	1825	0.4	12			1349	0.2	6			1416	0.2	6			1446	-0.1	-3			1445	0.2	6		1543	0.4	12				
13 M	0434	0.8	24	9	28 Tu	0313	1.2	37	0	13 Th	0316	1.4	43	0	28 F	0401	1.7	52	-3	13 Su	0426	1.8	55	28 M	0604	1.6	49				
	1549	0.3	9			1425	0.0	0			1451	0.0	0			1537	-0.1	-3			1532	0.2	6		1613	0.6	18				
14 Tu	0416	1.0	30	3	29 W	0346	1.4	43	-6	14 F	0407	1.5	46	-3	29 Sa	0508	1.7	52	0	14 M	0538	1.8	55	29 Tu	0711	1.5	46				
	1523	0.1	3			1509	-0.2	-6			1530	-0.1	-3			1623	0.0	0			1617	0.2	6		1630	0.8	24				
15 W	0429	1.1	34	-3	30 Th	0432	1.5	46	-12	15 Sa	0501	1.6	49	-3	30 Su	0610	1.7	52	3	15 Tu	0647	1.8	55	30 W	0815	1.4	43				
	1538	-0.1	-3			1556	-0.4	-12			1611	-0.1	-3			1704	0.1	3			1700	0.3	9		1626	0.9	27				
					31 F	0523	1.6	49	-12					31 M	0706	1.6	49	6							2219	1.0	30				
						1643	-0.4	-12							1739	0.2	6														

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Grand Isle (East Point), Louisiana, 2020

Times and Heights of High and Low Waters

January				February				March																					
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm															
1 W	0110	-0.1	-3	12	16 Th	0043	0.3	9	0	1 Sa	0332	-0.1	-3	12	16 Su	0238	-0.4	-12	1 Su	0029	-0.1	-3	12	16 M	0157	-0.3	-9	30	
	2339	0.4				1816	0.2	6		●	1545	0.4	12		16 Su	1546	0.8	24		1 Su	1354	0.7	21		●	1450	1.0	30	
2 Th	1037	0.0	0	9	17 F	0349	0.0	0	12	2 Su	0312	-0.2	-6	15	17 M	0340	-0.5	-15	24	2 M	0138	-0.2	-6	24	17 Tu	0305	-0.3	-9	30
●	2034	0.3			●	1700	0.4	12			1608	0.5	15			1648	0.8	24		●	1445	0.8	24			1604	1.0	30	
3 F	0838	0.0	0	9	18 Sa	0329	-0.3	-9	18	3 M	0340	-0.4	-12	18	18 Tu	0437	-0.6	-18	27	3 Tu	0238	-0.3	-9	27	18 W	0406	-0.3	-9	30
	1826	0.3				1701	0.6	18			1649	0.6	18			1753	0.9	27			1548	0.9	27			1723	1.0	30	
4 Sa	0510	0.0	0	15	19 Su	0410	-0.5	-15	21	4 Tu	0419	-0.5	-15	24	19 W	0531	-0.6	-18	27	4 W	0335	-0.4	-12	27	19 Th	0500	-0.2	-6	27
	1752	0.5				1732	0.7	21			1739	0.8	24			1857	0.9	27			1657	0.9	27			1839	0.9	27	
5 Su	0442	-0.2	-6	18	20 M	0456	-0.6	-18	24	5 W	0504	-0.6	-18	24	20 Th	0620	-0.5	-15	24	5 Th	0430	-0.4	-12	30	20 F	0545	-0.1	-3	27
	1757	0.6				1817	0.8	24			1834	0.8	24			1956	0.8	24			1809	1.0	30			1948	0.9	27	
6 M	0459	-0.4	-12	21	21 Tu	0544	-0.7	-21	27	6 Th	0551	-0.7	-21	27	21 F	0704	-0.5	-15	24	6 F	0523	-0.4	-12	30	21 Sa	0622	0.0	0	24
	1823	0.7				1907	0.9	27			1931	0.9	27			2047	0.8	24			1921	1.0	30			2050	0.8	24	
7 Tu	0531	-0.5	-15	24	22 W	0632	-0.7	-21	27	7 F	0641	-0.7	-21	30	22 Sa	0741	-0.4	-12	21	7 Sa	0615	-0.4	-12	30	22 Su	0649	0.1	3	21
	1859	0.8				1957	0.9	27			2028	1.0	30			2132	0.7	21			2032	1.0	30			2151	0.7	21	
8 W	0610	-0.6	-18	27	23 Th	0719	-0.7	-21	27	8 Sa	0730	-0.7	-21	27	23 Su	0811	-0.3	-9	21	8 Su	0704	-0.3	-9	27	23 M	0659	0.2	6	18
	1943	0.9				2045	0.9	27			2125	0.9	27		●	2213	0.7	21			2145	0.9	27			2300	0.6	18	
9 Th	0655	-0.7	-21	30	24 F	0802	-0.7	-21	24	9 Su	0817	-0.6	-18	27	24 M	0832	-0.1	-3	18	9 M	0750	-0.1	-3	21	24 Tu	0638	0.3	9	12
	2030	1.0			●	2129	0.8	24		○	2222	0.9	27			2253	0.6	18		○	2308	0.7	21			1108	0.4	12	
10 F	0742	-0.8	-24	30	25 Sa	0841	-0.6	-18	24	10 M	0901	-0.5	-15	21	25 Tu	0837	0.0	0	12	10 Tu	0828	0.1	3		25 W	0040	0.5	15	12
○	2119	1.0				2208	0.8	24			2321	0.7	21			2338	0.4	12								0516	0.4	12	
11 Sa	0830	-0.8	-24	30	26 Su	0914	-0.5	-15	21	11 Tu	0938	-0.3	-9		26 W	0812	0.1	3	6	11 W	0058	0.6	18	9	26 Th	1029	0.7	21	6
	2207	1.0				2243	0.7	21							1408	0.2	6	3		●	0822	0.3	9			1956	0.2	6	
12 Su	0918	-0.7	-21	27	27 M	0939	-0.4	-12	18	12 W	0028	0.5	15		27 Th	0040	0.3	9	6	12 Th	1114	0.6	18	0	27 F	1050	0.8	24	3
	2255	0.9				2313	0.6	18			0950	-0.1	-3			0658	0.2	6	9			2123	0.0	0			2105	0.1	3
13 M	1002	-0.6	-18	24	28 Tu	0953	-0.3	-9	12	13 Th	0220	0.2	6	3	28 F	1250	0.4	12	0	13 F	1154	0.8	24	-6	28 Sa	1120	0.9	27	0
	2342	0.8				2338	0.4	12			0830	0.1	3			2254	0.0	0				2310	-0.2	-6			2215	0.0	0
14 Tu	1038	-0.4	-12		29 W	0946	-0.2	-6	9	14 F	1415	0.5	15		29 Sa	1314	0.6	18		14 Sa	1246	0.9	27		29 Su	1200	1.0	30	0
						2351	0.3	9																			2326	0.0	0
15 W	0024	0.5	15	-6	30 Th	0902	0.0	0	3	15 Sa	0126	-0.2	-6	18					15 Su	0040	-0.3	-9	30	30 M	1249	1.1	34		
	1056	-0.2	-6			1800	0.1	3		●	1453	0.6	18																
					31 F	0707	0.0	0	6															31 Tu	0037	-0.1	-3	34	
						1553	0.2	6																					

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
 Heights are referred to mean lower low water which is the chart datum of soundings.

Grand Isle (East Point), Louisiana, 2020

Times and Heights of High and Low Waters

April				May				June																		
Time	Height			Time	Height			Time	Height			Time	Height													
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm							
1 W	0145	-0.1	-3	34	16 Th	0314	0.0	0	0	1 F	0156	1.1	34	16 Sa	0208	0.3	9	1 M	0019	0.5	15	16 Tu	0651	0.9	27	3
2 Th	0248	-0.2	-6	34	17 F	0358	0.2	6	27	2 Sa	0244	0.1	3	17 Su	0148	0.5	15	2 Tu	0719	1.0	30	17 W	0655	1.1	34	4
3 F	0345	-0.1	-3	34	18 Sa	0429	0.3	9	24	3 Su	0322	0.3	9	18 M	0827	0.8	24	3 W	0721	1.2	37	18 Th	0714	1.2	37	5
4 Sa	0438	-0.1	-3	30	19 Su	0440	0.4	12	18	4 M	0336	0.5	15	19 Tu	0756	0.9	27	4 Th	0748	1.3	40	19 F	0744	1.3	40	6
5 Su	0527	0.1	3	27	20 M	0415	0.5	15	18	5 Tu	0826	0.8	24	20 W	0756	1.0	30	5 F	0826	1.4	43	20 Sa	0820	1.3	40	7
6 M	0608	0.3	9	24	21 Tu	0905	0.8	24	9	6 W	0815	1.1	34	21 Th	0811	1.2	37	6 Sa	0910	1.5	46	21 Su	0900	1.4	43	8
7 Tu	0624	0.4	12	15	22 W	0857	0.9	27	6	7 Th	0839	1.2	37	22 F	0837	1.2	37	7 Su	0956	1.5	46	22 M	0942	1.4	43	9
8 W	0916	0.8	24	3	23 Th	0910	1.0	30	3	8 F	0918	1.4	43	23 Sa	0909	1.3	40	8 M	1041	1.4	43	23 Tu	1024	1.4	43	10
9 Th	0939	1.0	30	-3	24 F	0934	1.1	34	3	9 Sa	1003	1.5	46	24 Su	0946	1.4	43	9 Tu	1123	1.3	40	24 W	1106	1.3	40	11
10 F	1022	1.2	37	-6	25 Sa	1005	1.2	37	0	10 Su	1051	1.5	46	25 M	1027	1.4	43	10 W	1158	1.2	37	25 Th	1145	1.2	37	12
11 Sa	1111	1.3	40	-6	26 Su	1042	1.2	37	0	11 M	1139	1.4	43	26 Tu	1111	1.4	43	11 Th	1223	1.1	34	26 F	1217	1.0	30	13
12 Su	1204	1.3	40		27 M	1125	1.3	40	-3	12 Tu	1227	1.3	40	27 W	1155	1.3	40	12 F	0004	0.1	3	27 Sa	1202	0.8	24	14
13 M	0006	-0.2	-6	40	28 Tu	1214	1.3	40		13 W	0032	0.0	0	28 Th	1239	1.3	40	13 Sa	0003	0.3	9	28 Su	0805	0.7	21	15
14 Tu	0116	-0.1	-3	37	29 W	0001	-0.1	-3	40	14 Th	0119	0.1	3	29 F	0017	0.0	0	14 Su	0833	0.7	21	29 M	0628	0.8	24	16
15 W	0220	-0.1	-3	34	30 Th	0101	-0.1	-3	37	15 F	0153	0.2	6	30 Sa	0052	0.1	3	15 M	0717	0.8	24	30 Tu	0605	1.0	30	17
													31 Su	0107	0.3	9										

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Grand Isle (East Point), Louisiana, 2020

Times and Heights of High and Low Waters

July				August				September																							
Time		Height		Time		Height		Time		Height		Time		Height																	
h	m	ft	cm	h	m	ft	cm	h	m	ft	cm	h	m	ft	cm																
1	W	0620	1.2	37	16	Th	1726	-0.1	-3	1	Sa	1857	-0.2	-6	16	Su	1822	-0.1	-3	1	Tu	1949	0.4	12	16	W	1911	0.5	15		
2	Th	0653	1.3	40	17	F	0643	1.3	40	2	Su	0825	1.5	46	17	M	0806	1.5	46	0	2	W	0959	1.2	37	17	Th	1042	1.3	40	
3	F	0736	1.4	43	18	Sa	0726	1.4	43	3	M	0912	1.4	43	18	Tu	0900	1.5	46	0	3	Th	1044	1.1	34	18	18	F	0042	0.8	24
4	Sa	0823	1.5	46	19	Su	0812	1.4	43	4	Tu	0954	1.3	40	19	W	0956	1.4	43	6	4	F	1136	1.0	30	19	Sa	0410	0.7	21	
5	Su	0910	1.5	46	20	M	0858	1.4	43	5	W	1030	1.2	37	20	Th	1055	1.3	40	12	5	Sa	0058	0.9	27	20	Su	0900	0.5	15	
6	M	0954	1.4	43	21	Tu	0944	1.4	43	6	Th	1100	1.1	34	21	F	1204	1.1	34	18	6	Su	0020	1.0	30	21	21	M	1040	0.3	9
7	Tu	1034	1.3	40	22	W	1029	1.4	43	7	F	1125	1.0	30	22	Sa	0330	0.7	21	18	7	M	0026	1.1	34	18	22	Tu	0019	1.5	46
8	W	1108	1.2	37	23	Th	1114	1.2	37	8	Sa	1129	0.8	24	23	Su	0140	0.9	27	18	8	Tu	0053	1.2	37	15	23	W	0117	1.6	49
9	Th	1133	1.1	34	24	F	1155	1.0	30	9	Su	0414	0.8	24	24	M	0141	1.1	34	12	9	W	0133	1.3	40	12	24	Th	0222	1.6	49
10	F	1141	0.9	27	25	Sa	1219	0.8	24	10	M	0316	0.9	27	25	Tu	0219	1.3	40	6	10	Th	0224	1.4	43	9	25	F	0334	1.6	49
11	Sa	1044	0.8	24	26	Su	0528	0.7	21	11	Tu	0319	1.0	30	26	W	0312	1.4	43	3	11	F	0324	1.5	46	9	26	Sa	0452	1.5	46
12	Su	0719	0.7	21	27	M	0423	0.9	27	12	W	0347	1.1	34	27	Th	0414	1.5	46	0	12	Sa	0432	1.5	46	6	27	Su	0609	1.5	46
13	M	0548	0.8	24	28	Tu	0427	1.1	34	13	Th	0429	1.2	37	28	F	0522	1.5	46	0	13	Su	0542	1.5	46	6	28	M	0721	1.4	43
14	Tu	0527	0.9	27	29	W	0500	1.3	40	14	F	0520	1.3	40	29	Sa	0629	1.5	46	3	14	M	0652	1.6	49	6	29	Tu	0829	1.3	40
15	W	0538	1.1	34	30	Th	0546	1.4	43	15	Sa	0615	1.4	43	30	Su	0731	1.5	46	6	15	Tu	0802	1.5	46	9	30	W	0938	1.2	37
					31	F	0639	1.5	46					31	M	0826	1.4	43	9												

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Grand Isle (East Point), Louisiana, 2020

Times and Heights of High and Low Waters

October				November				December															
Time		Height		Time		Height		Time		Height		Time		Height									
h	m	ft	cm	h	m	ft	cm	h	m	ft	cm	h	m	ft	cm								
1 Th ○	0028	0.9	27	16 F ●	0511	0.6	18	1 Su	0734	0.3	9	16 M	0815	-0.2	-6	1 Tu	0815	-0.2	-6				
	0321	0.8	24		2106	1.2	37		2126	1.3	40		2149	1.5	46		2140	1.2	37	16 W	0917	-0.6	-18
	1101	1.0	30																				
	1739	0.9	27																				
2238	1.0	30																					
2 F	0539	0.8	24	17 Sa	0642	0.4	12	2 M	0816	0.2	6	17 Tu	0918	-0.3	-9	2 W	0858	-0.3	-9	17 Th	1011	-0.6	-18
	2210	1.1	34		2124	1.4	43		2156	1.4	43		2239	1.5	46		2219	1.2	37		2321	1.1	34
3 Sa	0701	0.7	21	18 Su	0801	0.3	9	3 Tu	0902	0.2	6	18 W	1022	-0.3	-9	3 Th	0943	-0.3	-9	18 F	1059	-0.4	-12
	2215	1.2	37		2204	1.5	46		2232	1.4	43		2330	1.5	46		2300	1.2	37		2359	0.9	27
4 Su	0807	0.6	18	19 M	0916	0.1	3	4 W	0953	0.1	3	19 Th	1124	-0.2	-6	4 F	1029	-0.3	-9	19 Sa	1137	-0.3	-9
	2236	1.3	40		2252	1.6	49		2313	1.4	43		1124	-0.2	-6		2341	1.2	37				
5 M	0909	0.5	15	20 Tu	1031	0.1	3	5 Th	1049	0.1	3	20 F	0019	1.4	43	5 Sa	1113	-0.3	-9	20 Su	0027	0.8	24
	2306	1.4	43		2345	1.7	52		2358	1.4	43		1221	-0.1	-3				1201		-0.2	-6	
6 Tu	1012	0.5	15	21 W	1144	0.1	3	6 F	1145	0.1	3	21 Sa	0105	1.2	37	6 Su	0022	1.1	34	21 M	0028	0.6	18
	2344	1.5	46																				
7 W	1117	0.4	12	22 Th	0042	1.6	49	7 Sa	0047	1.4	43	22 Su	0141	1.0	30	7 M	0059	0.9	27	22 Tu	1101	0.1	3
					1254	0.1	3		1239	0.1	3		1341	0.1	3		1226	-0.1	-3		2009	0.4	12
8 Th	0031	1.5	46	23 F	0142	1.6	49	8 Su	0140	1.3	40	23 M	0150	0.9	27	8 Tu	0118	0.7	21	23 W	0648	0.1	3
	1224	0.3	9		1358	0.2	6		1328	0.1	3		1354	0.3	9		2157	0.5	15		1854	0.5	15
9 F	0125	1.5	46	24 Sa	0245	1.4	43	9 M	0238	1.2	37	24 Tu	1325	0.4	12	9 W	1159	0.3	9	24 Th	0517	0.0	0
	1326	0.3	9		1452	0.3	9		1411	0.2	6		2124	0.7	21		1943	0.6	18		1834	0.6	18
10 Sa	0228	1.5	46	25 Su	0352	1.3	40	10 Tu	0357	1.0	30	25 W	0603	0.5	15	10 Th	0422	0.2	6	25 F	0522	-0.2	-6
	1424	0.3	9		1534	0.4	12		1444	0.4	12		2012	0.7	21		1859	0.7	21		1842	0.7	21
11 Su	0338	1.5	46	26 M	0510	1.1	34	11 W	0649	0.8	24	26 Th	0542	0.3	9	11 F	0454	-0.1	-3	26 Sa	0545	-0.3	-9
	1517	0.3	9		1602	0.5	15		2116	0.8	24		1946	0.9	27		1901	0.9	27		1906	0.8	24
12 M	0459	1.5	46	27 Tu	0700	1.0	30	12 Th	0403	0.5	15	27 F	0601	0.1	3	12 Sa	0540	-0.3	-9	27 Su	0616	-0.4	-12
	1605	0.4	12		1606	0.7	21		2012	0.9	27		1948	1.0	30		1929	1.1	34		1938	0.9	27
13 Tu	0633	1.4	43	28 W	0404	0.8	24	13 F	0513	0.3	9	28 Sa	0629	0.0	0	13 Su	0631	-0.5	-15	28 M	0651	-0.5	-15
	1647	0.5	15		0935	0.9	27		2001	1.1	34		2005	1.1	34		2010	1.2	37		2015	0.9	27
14 W	0823	1.2	37	29 Th	0524	0.7	21	14 Sa	0614	0.1	3	29 Su	0700	-0.1	-3	14 M	0725	-0.6	-18	29 Tu	0730	-0.6	-18
	1720	0.7	21		2055	1.0	30		2024	1.3	40		2031	1.1	34		2057	1.3	40		2055	1.0	30
15 Th	0248	0.7	21	30 F	0613	0.5	15	15 Su	0714	-0.1	-3	30 M	0735	-0.2	-6	15 Tu	0821	-0.6	-18	30 W	0810	-0.6	-18
	1039	1.1	34		2050	1.1	34		2103	1.5	46		2103	1.2	37		2147	1.3	40		2136	1.0	30
	1722	0.9	27	31 Sa	0655	0.4	12																
	2139	1.0	30		2103	1.2	37																
				○																			

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Galveston (Galveston Channel), Texas, 2020

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm	h m	ft cm
1 Th ○	0402 1.6 49 0951 1.0 30 1550 1.6 49 2159 0.9 27	16 F ●	0310 1.6 49 0910 0.6 18 1605 1.9 58 2202 1.0 30	1 Su	0252 1.5 46 1007 0.3 9 1757 1.7 52 2243 1.4 43	16 M	0224 1.5 46 1022 -0.4 -12 1841 1.9 58	1 Tu	0125 1.3 40 1009 -0.3 -9 1841 1.5 46 2303 1.2 37	16 W	0158 1.3 40 1057 -0.8 -24 1936 1.4 43
2 F	0411 1.6 49 1013 0.9 27 1646 1.6 49 2225 1.1 34	17 Sa	0325 1.6 49 0955 0.3 9 1718 2.0 61 2259 1.3 40	2 M	0251 1.5 46 1036 0.2 6 1846 1.7 52 2319 1.4 43	17 Tu	0014 1.5 46 0233 1.6 49 1112 -0.4 -12 1947 1.9 58	2 W	0123 1.3 40 1043 -0.3 -9 1930 1.5 46	17 Th	1147 -0.7 -21 2034 1.3 40
3 Sa	0420 1.6 49 1041 0.7 21 1743 1.6 49 2254 1.2 37	18 Su	0339 1.6 49 1042 0.1 3 1832 2.0 61	3 Tu	0236 1.5 46 1108 0.2 6 1941 1.7 52 2357 1.5 46	18 W	1204 -0.4 -12 2058 1.8 55	3 Th	1121 -0.3 -9 2026 1.4 43	18 F	1238 -0.5 -15 2130 1.2 37
4 Su	0426 1.6 49 1111 0.6 18 1844 1.6 49 2326 1.4 43	19 M	0001 1.5 46 0351 1.7 52 1132 0.0 0 1949 2.1 64	4 W	0214 1.6 49 1144 0.2 6 2043 1.7 52	19 Th	1301 -0.2 -6 2212 1.7 52	4 F	1203 -0.3 -9 2125 1.4 43	19 Sa	1330 -0.3 -9 2216 1.1 34
5 M	0425 1.6 49 1145 0.5 15 1949 1.7 52	20 Tu	0125 1.6 49 0347 1.7 52 1226 0.0 0 2110 2.0 61	5 Th	1226 0.2 6 2155 1.7 52	20 F	1403 0.0 0 2318 1.6 49	5 Sa	1250 -0.2 -6 2216 1.4 43	20 Su	1425 0.0 0 2248 1.0 30
6 Tu	0004 1.5 46 0402 1.6 49 1222 0.5 15 2102 1.7 52	21 W	1326 0.0 0 2237 2.0 61	6 F	1315 0.2 6 2309 1.7 52	21 Sa ○	1514 0.2 6	6 Su	1342 -0.1 -3 2251 1.3 40	21 M ○	1526 0.2 6 2309 1.0 30
7 W	0050 1.5 46 0319 1.6 49 1305 0.4 12 2224 1.8 55	22 Th	1434 0.1 3 2359 1.9 58	7 Sa	1413 0.2 6	22 Su	0005 1.5 46 1631 0.3 9	7 M ○	1443 0.1 3 2315 1.2 37	22 Tu	0639 0.4 12 1108 0.6 18 1642 0.4 12 2324 0.9 27
8 Th	1356 0.4 12 2351 1.8 55	23 F ○	1551 0.3 9	8 Su	0002 1.7 52 1520 0.3 9	23 M	0033 1.4 43 0739 0.9 27 1048 1.0 30 1745 0.5 15	8 Tu	0650 0.7 21 0912 0.8 24 1554 0.3 9 2333 1.2 37	23 W	0654 0.2 6 1307 0.7 21 1809 0.6 18 2336 0.9 27
9 F ○	1457 0.4 12	24 Sa	0100 1.9 58 1711 0.4 12	9 M	0032 1.7 52 1633 0.4 12	24 Tu	0050 1.3 40 0747 0.7 21 1238 1.1 34 1849 0.7 21	9 W	0614 0.5 15 1151 0.9 27 1716 0.5 15 2349 1.1 34	24 Th	0712 0.0 0 1429 0.8 24 1927 0.7 21 2345 0.9 27
10 Sa	0057 1.8 55 1604 0.4 12	25 Su	0140 1.8 55 1822 0.5 15	10 Tu	0052 1.6 49 0726 1.2 37 1049 1.3 40 1746 0.5 15	25 W	0100 1.3 40 0801 0.5 15 1400 1.1 34 1943 0.8 24	10 Th	0638 0.2 6 1330 1.1 34 1842 0.7 21	25 F	0731 -0.2 -6 1522 1.0 30 2032 0.8 24 2353 0.9 27
11 Su	0137 1.8 55 1714 0.4 12	26 M	0204 1.7 52 0826 1.3 40 1207 1.4 43 1920 0.6 18	11 W	0108 1.5 46 0711 0.9 27 1246 1.4 43 1855 0.7 21	26 Th	0108 1.2 37 0815 0.3 9 1503 1.2 37 2029 0.9 27	11 F	0004 1.1 34 0713 -0.2 -6 1446 1.3 40 2001 0.9 27	26 Sa	0753 -0.4 -12 1522 1.1 34 2123 0.8 24
12 M	0203 1.8 55 1818 0.4 12	27 Tu	0218 1.6 49 0838 1.1 34 1326 1.5 46 2007 0.8 24	12 Th	0123 1.5 46 0736 0.6 18 1411 1.5 46 2000 0.9 27	27 F	0115 1.2 37 0831 0.2 6 1553 1.3 40 2108 1.1 34	12 Sa	0021 1.1 34 0753 -0.5 -15 1550 1.5 46 2111 1.1 34	27 Su	0000 0.9 27 0818 -0.5 -15 1637 1.1 34 2155 0.9 27
13 Tu	0222 1.8 55 0742 1.5 46 1157 1.6 49 1918 0.5 15	28 W	0227 1.6 49 0851 0.9 27 1431 1.5 46 2044 0.9 27	13 F	0137 1.4 43 0812 0.3 9 1525 1.7 52 2103 1.1 34	28 Sa	0121 1.2 37 0850 0.0 0 1636 1.4 43 2141 1.1 34	13 Su	0041 1.2 37 0836 -0.7 -21 1648 1.6 49 2212 1.1 34	28 M	0007 1.0 30 0846 -0.6 -18 1712 1.1 34 2204 0.9 27
14 W	0239 1.7 52 0756 1.2 37 1330 1.7 52 2014 0.6 18	29 Th	0234 1.5 46 0905 0.8 24 1528 1.5 46 2116 1.1 34	14 Sa ●	0153 1.4 43 0852 -0.1 -3 1632 1.8 55 2203 1.3 40	29 Su	0126 1.2 37 0913 -0.1 -3 1717 1.4 43 2210 1.2 37	14 M ●	0104 1.2 37 0922 -0.9 -27 1744 1.6 49 2305 1.2 37	29 Tu ○	0021 1.0 30 0917 -0.7 -21 1749 1.2 37 2208 0.9 27
15 Th	0254 1.6 49 0830 0.9 27 1450 1.8 55 2108 0.8 24	30 F	0241 1.5 46 0921 0.6 18 1620 1.6 49 2143 1.2 37	15 Su	0209 1.5 46 0936 -0.3 -9 1737 1.9 58 2305 1.4 43	30 M ○	0128 1.3 40 0939 -0.2 -6 1757 1.5 46 2237 1.2 37	15 Tu	0131 1.3 40 1009 -0.9 -27 1839 1.5 46 2355 1.2 37	30 W	0044 1.0 30 0951 -0.7 -21 1829 1.1 34 2222 0.9 27
		31 Sa ○	0248 1.5 46 0942 0.5 15 1709 1.7 52 2212 1.3 40							31 Th	0114 1.0 30 1028 -0.7 -21 1912 1.1 34 2248 0.9 27

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings. On days when the tide is diurnal, high water has an approximate stand of about 7 hours. Predictions are for beginning of stand.

Port O'Connor, Texas, 2020

Times and Heights of High and Low Waters

July				August				September																				
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height															
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm														
1 W	0827	0.6	18		16 Th	0731	0.5	15		1 Sa	0919	0.7	21		16 Su	2146	-0.2	-6	1 Tu	0924	0.9	27	16 W	2255	0.5	15		
	2028	-0.4	-12			2018	-0.3	-9			2216	-0.4	-12			2146	-0.2	-6		2322	0.3	9		○				
2 Th	0835	0.7	21		17 F	0757	0.6	18		2 Su	1009	0.7	21		17 M	0926	0.8	24		2 W	0911	0.8	24	17 Th	0821	1.0	30	
	2119	-0.5	-15			2106	-0.4	-12			2308	-0.4	-12			2236	-0.1	-3			2345	0.4	12		●	1050	0.9	27
3 F	0915	0.7	21		18 Sa	0841	0.6	18		3 M	1051	0.7	21		18 Tu	1018	0.8	24		3 Th	0900	0.8	24	18 F	●	1518	1.0	30
	2213	-0.5	-15			2157	-0.4	-12			2351	-0.3	-9			2321	-0.1	-3						●	2340	0.7	21	
4 Sa	1005	0.7	21		19 Su	0931	0.6	18		4 Tu	1110	0.6	18		19 W	1057	0.7	21		4 F	0007	0.5	15	19 Sa	0026	0.8	24	
	2307	-0.5	-15			2247	-0.4	-12			○				0002	0.0	0			0825	0.8	24		●	0502	0.9	27	
5 Su	1057	0.7	21		20 M	1022	0.6	18		5 W	0024	-0.2	-6		20 Th	0002	0.0	0		5 Sa	0708	0.8	24	20 Su	1220	0.7	21	
	2358	-0.5	-15			2335	-0.4	-12			1101	0.5	15			1441	0.7	21			1326	0.6	18		●	2102	1.1	34
6 M	1144	0.6	18		21 Tu	1108	0.6	18		6 Th	0050	-0.1	-3		21 F	0041	0.1	3		6 Su	0101	0.6	18	21 M	0322	1.2	37	
	○					○					1052	0.5	15			0934	0.6	18			0621	0.8	24		●	1407	0.4	12
7 Tu	0044	-0.4	-12		22 W	0019	-0.4	-12		7 F	0112	0.0	0		22 Sa	0119	0.3	9		7 M	0539	0.8	24	22 Tu	0308	1.3	40	
	1214	0.6	18			1140	0.5	15			1036	0.4	12			0747	0.5	15			1439	0.4	12		●	1509	0.4	12
8 W	0123	-0.4	-12		23 Th	0100	-0.3	-9		8 Sa	0133	0.1	3		23 Su	0151	0.5	15		8 Tu	0448	0.9	27	23 W	0359	1.4	43	
	1221	0.5	15			1148	0.5	15			0941	0.4	12			0652	0.6	18			1520	0.4	12		●	1616	0.3	9
9 Th	0154	-0.3	-9		24 F	0138	-0.2	-6		9 Su	0148	0.2	6		24 M	0612	0.7	21		9 W	0317	1.0	30	24 Th	0455	1.4	43	
	1219	0.4	12			1129	0.4	12			0839	0.4	12			1542	0.1	3			1611	0.4	12		●	1729	0.4	12
10 F	0219	-0.2	-6		25 Sa	0212	-0.1	-3		10 M	0754	0.4	12		25 Tu	0553	0.8	24		10 Th	0409	1.1	34	25 F	0550	1.4	43	
	1211	0.4	12			1015	0.3	9			1634	0.1	3			1643	0.0	0			1711	0.3	9		●	1843	0.4	12
11 Sa	0238	-0.1	-3		26 Su	0237	0.1	3		11 Tu	0712	0.5	15		26 W	0601	0.9	27		11 F	0504	1.2	37	26 Sa	0637	1.4	43	
	1138	0.3	9			0906	0.3	9			1711	0.0	0			1748	0.0	0			1818	0.3	9		●	1953	0.5	15
12 Su	0234	0.0	0		27 M	0818	0.4	12		12 W	0627	0.6	18		27 Th	0635	1.0	30		12 Sa	0601	1.2	37	27 Su	0707	1.3	40	
	1029	0.3	9			1726	-0.2	-6			1757	-0.1	-3			1858	-0.1	-3			1926	0.3	9		●	2050	0.6	18
13 M	0937	0.3	9		28 Tu	0743	0.5	15		13 Th	0610	0.7	21		28 F	0723	1.0	30		13 Su	0657	1.2	37	28 M	0708	1.3	40	
	1835	-0.1	-3			1818	-0.3	-9			1852	-0.1	-3			2009	0.0	0			2027	0.3	9		●	2134	0.7	21
14 Tu	0847	0.3	9		29 W	0732	0.6	18		14 F	0646	0.8	24		29 Sa	0814	1.0	30		14 M	0750	1.2	37	29 Tu	0702	1.2	37	
	1900	-0.2	-6			1915	-0.4	-12			1951	-0.1	-3			2114	0.0	0			2121	0.4	12		●	2204	0.8	24
15 W	0801	0.4	12		30 Th	0751	0.7	21		15 Sa	0736	0.8	24		30 Su	0901	1.0	30		15 Tu	0834	1.2	37	30 W	0655	1.2	37	
	1935	-0.3	-9			2016	-0.4	-12			2050	-0.2	-6			2209	0.1	3			2210	0.4	12		●	2228	0.9	27
					31 F	0830	0.7	21							31 M	0932	0.9	27										
						2117	-0.4	-12								2251	0.2	6										

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Padre Island (south end), Texas, 2020

Times and Heights of High and Low Waters

January				February				March																				
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height															
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm														
1 W	1231	0.4	12	40	16 Th	0210	0.6	18	46	1 Sa	1806	0.9	27	16 Su	1247	-1.2	-37	1 Su	0042	0.1	3	16 M	0158	-0.5	-15			
	2053	1.3	40			0636	0.8	24		●											●							
2 Th	1305	0.6	18		17 F	0246	0.2	6		2 Su	0300	0.0	0	17 M	0343	-0.7	-21	2 M	0136	-0.1	-3	17 Tu	0309	-0.5	-15			
●	2043	1.2	37			0938	0.8	24			1332	0.9	27		1401	1.3	40		1208	1.2	37		1323	1.5	46			
					●	1400	0.7	21		3 M	0344	-0.2	-6	18 Tu	0446	-0.7	-21	3 Tu	0237	-0.2	-6	18 W	0422	-0.4	-12			
3 F	0417	0.6	18			1548	0.9	27			1403	1.1	34		1455	1.4	43		1310	1.3	40		1410	1.5	46			
	1032	0.8	24		18 Sa	0331	-0.2	-6		4 Tu	0432	-0.4	-12	19 W	0547	-0.7	-21	4 W	0342	-0.4	-12	19 Th	0529	-0.2	-6			
	1340	0.7	21			1224	1.0	30			1441	1.2	37		1540	1.4	43		1359	1.5	46		1446	1.5	46			
	2025	1.1	34			1548	0.9	27		5 W	0521	-0.6	-18	20 Th	0643	-0.7	-21	5 Th	0447	-0.5	-15	20 F	0629	-0.1	-3			
4 Sa	0431	0.4	12	34	19 Su	0419	-0.5	-15			1522	1.4	43		1619	1.4	43		1441	1.5	46		1512	1.4	43			
	1957	1.1	34			1406	1.2	37		6 Th	0612	-0.8	-24	21 F	0734	-0.6	-18	6 F	0548	-0.5	-15	21 Sa	0722	0.1	3			
5 Su	0454	0.1	3	34	20 M	0510	-0.7	-21			1603	1.5	46		1651	1.3	40		1518	1.6	49		1528	1.3	40			
	1423	1.1	34			1508	1.4	43		7 F	0702	-0.9	-27	22 Sa	0820	-0.4	-12	7 Sa	0647	-0.5	-15	22 Su	0023	1.3	40			
6 M	0523	-0.2	-6	40	21 Tu	0601	-0.9	-27			1643	1.5	46		1714	1.2	37		1547	1.5	46		0808	0.2	6			
	1501	1.3	40			1600	1.4	43		8 Sa	0753	-0.9	-27	23 Su	0007	1.1	34	8 Su	0743	-0.5	-15	23 M	0134	1.3	40			
7 Tu	0557	-0.4	-12	43	22 W	0651	-1.0	-30			1719	1.5	46		0901	-0.2	-6		1606	1.4	43		0850	0.4	12			
	1540	1.4	43			1647	1.4	43		9 Su	0843	-0.8	-24	24 M	0901	1.2	37	9 M	2040	1.1	34		1536	1.2	37			
8 W	0636	-0.7	-21	46	23 Th	0740	-0.9	-27			1745	1.4	43		2140	1.0	30		2040	1.1	34		2023	1.0	30			
	1622	1.5	46			1731	1.4	43		10 M	0933	-0.7	-21	25 Tu	0123	1.1	34	9 Tu	0032	1.3	40	24 Tu	0237	1.3	40			
9 Th	0717	-0.8	-24	49	24 F	0826	-0.8	-24			1801	1.2	37		0937	0.0	0	10 M	0838	-0.3	-9	25 W	0929	0.6	18			
	1707	1.6	49		●	1810	1.4	43		11 Tu	1023	-0.4	-12		1733	1.1	34		1614	1.2	37		1527	1.0	30			
10 F	0802	-0.9	-27	49	25 Sa	0909	-0.7	-21			1807	1.0	30		2158	0.9	27		2057	0.8	24		2101	0.7	21			
○	1752	1.6	49			1843	1.3	40		12 W	1114	0.0	0	26 W	0337	1.0	30	10 Tu	0210	1.3	40	25 W	0337	1.3	40			
11 Sa	0848	-1.0	-30	49	26 Su	0948	-0.5	-15			2241	1.0	30		0422	0.4	12		2130	0.5	15		1008	0.7	21			
	1835	1.6	49			1907	1.3	40		13 Th	1208	0.3	9	27 Th	0451	1.0	30	11 W	0343	1.3	40	26 Th	0437	1.3	40			
12 Su	0935	-0.9	-27	49	27 M	1024	-0.3	-9			2310	0.7	21		1115	0.5	15		1608	0.9	27	27 F	1153	0.9	27			
	1911	1.6	49			1918	1.2	37		14 F	1313	0.7	21	28 F	1658	0.9	27	12 Th	1555	0.9	27		1408	1.0	30			
13 M	1024	-0.7	-21	46	28 Tu	1057	0.0	0			1736	0.8	24		2320	0.4	12		2259	-0.1	-3		2219	0.1	3			
	1936	1.5	46			1919	1.1	34		15 Sa	1555	0.8	24	29 Sa	0617	0.9	27	13 F	0701	1.3	40	28 Sa	0654	1.3	40			
14 Tu	1113	-0.4	-12	40	29 W	0046	0.8	24			1755	0.8	24		1153	0.7	21		1255	0.8	24		2256	0.0	0			
	1949	1.3	40			0319	0.9	27		16 Su	1804	0.9	27	30 Su	0805	1.0	30	14 Sa	1523	0.9	27	29 Su	0820	1.3	40			
15 W	1203	-0.1	-3	34	30 Th	0111	0.7	21			2352	0.4	12		1556	0.9	27		2352	-0.4	-12		2342	-0.1	-3			
	1951	1.1	34			0513	0.8	24		17 Th	1911	1.0	30				15 Su	0855	1.3	40	15 Su	0052	-0.5	-15	30 M	0955	1.4	43
						1155	0.4	12														1051	-1.4	-43		1117	-1.6	-49
					31 F	0144	0.5	15		18 Fr	0736	0.7	21															
						1223	0.6	18			1836	0.9	27															
					●																							

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Tampico Harbor (Madero), Mexico, 2020

Times and Heights of High and Low Waters

January				February				March			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	h m	ft	h m	ft	h m	ft	h m	ft	h m	ft
1 W	0218 0.7 21 0424 0.8 24 1223 0.3 9 1950 1.0 30	16 Th	0128 0.6 18 0612 0.9 27 1249 0.3 9 1912 1.0 30	1 Sa	0142 0.3 9 1800 1.0 30	16 Su	0216 -0.2 -6 1227 1.2 37	1 Su	0040 0.2 6 1119 1.2 37	16 M	0138 -0.2 -6 1213 1.4 43
2 Th	0233 0.6 18 0653 0.7 21 1304 0.5 15 1956 1.0 30	17 F	0210 0.3 9 0850 0.9 27 1350 0.7 21 1914 1.0 30	2 Su	0227 0.1 3 1431 1.1 34	17 M	0322 -0.3 -9 1404 1.3 40	2 M	0125 0.1 3 1235 1.3 40	17 Tu	0245 -0.2 -6 1331 1.4 43
3 F	0306 0.5 15 1036 0.8 24 1343 0.7 21 1955 1.0 30	18 Sa	0303 0.1 3 1138 1.0 30 1605 0.9 27 1858 1.0 30	3 M	0318 0.0 0 1426 1.2 37	18 Tu	0429 -0.4 -12 1452 1.3 40	3 Tu	0216 0.0 0 1338 1.4 43	18 W	0401 -0.2 -6 1422 1.3 40
4 Sa	0344 0.3 9 1240 1.0 30 1539 0.9 27 1931 1.0 30	19 Su	0400 -0.2 -6 1353 1.2 37	4 Tu	0410 -0.2 -6 1451 1.3 40	19 W	0530 -0.4 -12 1529 1.3 40	4 W	0318 -0.1 -3 1417 1.5 46	19 Th	0510 -0.1 -3 1453 1.3 40
5 Su	0422 0.1 3 1426 1.1 34	20 M	0454 -0.4 -12 1454 1.3 40	5 W	0500 -0.4 -12 1519 1.4 43	20 Th	0627 -0.4 -12 1558 1.2 37	5 Th	0423 -0.2 -6 1447 1.6 49	20 F	0612 0.0 0 1508 1.2 37 2029 0.9 27 2302 1.0 30
6 M	0459 -0.1 -3 1500 1.3 40	21 Tu	0546 -0.6 -18 1538 1.3 40	6 Th	0551 -0.5 -15 1548 1.5 46	21 F	0717 -0.4 -12 1618 1.2 37	6 F	0526 -0.3 -9 1510 1.6 49	21 Sa	0706 0.1 3 1508 1.1 34 2015 0.9 27
7 Tu	0538 -0.3 -9 1532 1.4 43	22 W	0638 -0.7 -21 1617 1.3 40	7 F	0643 -0.6 -18 1616 1.5 46	22 Sa	0758 -0.3 -9 1625 1.1 34 2110 0.9 27	7 Sa	0627 -0.3 -9 1527 1.5 46	22 Su	0014 1.1 34 0749 0.2 6 1502 1.1 34 2013 0.8 24
8 W	0619 -0.5 -15 1605 1.4 43	23 Th	0725 -0.7 -21 1651 1.2 37	8 Sa	0734 -0.6 -18 1641 1.5 46	23 Su	0028 1.0 30 0832 -0.2 -6 1626 1.0 30 2107 0.8 24	8 Su	0725 -0.3 -9 1537 1.4 43 2038 1.1 34	23 M	0127 1.1 34 0824 0.3 9 1459 1.1 34 2022 0.7 21
9 Th	0702 -0.7 -21 1641 1.5 46	24 F	0805 -0.7 -21 1719 1.1 34	9 Su	0821 -0.6 -18 1701 1.4 43 2153 1.1 34	24 M	0144 1.0 30 0904 0.0 0 1627 1.0 30 2119 0.7 21	9 M	0026 1.3 40 0818 -0.1 -3 1543 1.3 40 2048 0.9 27	24 Tu	0228 1.2 37 0855 0.5 15 1500 1.1 34 2041 0.5 15
10 F	0744 -0.8 -24 1717 1.5 46	25 Sa	0841 -0.6 -18 1737 1.1 34	10 M	0040 1.2 37 0908 -0.4 -12 1715 1.3 40 2205 1.0 30	25 Tu	0244 1.0 30 0934 0.2 6 1632 1.0 30 2143 0.6 18	10 Tu	0200 1.3 40 0908 0.1 3 1549 1.2 37 2113 0.6 18	25 W	0320 1.2 37 0926 0.6 18 1504 1.1 34 2107 0.4 12
11 Sa	0826 -0.8 -24 1752 1.5 46	26 Su	0914 -0.4 -12 1749 1.0 30 2253 0.8 24	11 Tu	0224 1.2 37 0956 -0.2 -6 1724 1.1 34 2240 0.8 24	26 W	0340 1.0 30 1007 0.4 12 1638 1.0 30 2220 0.5 15	11 W	0320 1.4 43 1000 0.3 9 1556 1.1 34 2151 0.4 12	26 Th	0415 1.2 37 1001 0.8 24 1506 1.1 34 2137 0.3 9
12 Su	0910 -0.7 -21 1820 1.4 43	27 M	0147 0.9 27 0948 -0.2 -6 1757 1.0 30 2311 0.8 24	12 W	0349 1.1 34 1052 0.1 3 1732 1.1 34 2332 0.5 15	27 Th	0444 1.0 30 1046 0.6 18 1643 1.0 30 2307 0.4 12	12 Th	0442 1.3 40 1104 0.6 18 1602 1.0 30 2241 0.1 3	27 F	0517 1.3 40 1055 1.0 30 1503 1.1 34 2213 0.2 6
13 M	0957 -0.5 -15 1842 1.3 40	28 Tu	0257 0.9 27 1025 0.0 0 1806 1.0 30 2349 0.7 21	13 Th	0525 1.1 34 1156 0.4 12 1739 1.0 30	28 F	0602 1.0 30 1137 0.8 24 1641 1.0 30 2355 0.3 9	13 F	0613 1.3 40 1224 0.9 27 1602 1.0 30 2341 -0.1 -3	28 Sa	0627 1.3 40 1240 1.0 30 1440 1.1 34 2257 0.1 3
14 Tu	1051 -0.3 -9 1856 1.2 37	29 W	0404 0.8 24 1106 0.2 6 1814 1.0 30	14 F	0026 0.2 6 0713 1.0 30 1300 0.7 21 1741 1.0 30	29 Sa	0738 1.0 30 1236 0.9 27 1620 1.0 30	14 Sa	0805 1.3 40	29 Su	0800 1.3 40 2346 0.1 3
15 W	0102 0.9 27 0407 1.0 30 1151 0.0 0 1906 1.1 34	30 Th	0026 0.6 18 0532 0.8 24 1150 0.5 15 1819 1.0 30	15 Sa	0118 0.0 0 1025 1.1 34 1428 0.9 27 1720 1.0 30			15 Su	0040 -0.2 -6 1049 1.3 40	30 M	1046 1.4 43
		31 F	0103 0.4 12 0717 0.8 24 1230 0.7 21 1818 1.0 30							31 Tu	0036 0.0 0 1137 1.5 46

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

Tampico Harbor (Madero), Mexico, 2020

Times and Heights of High and Low Waters

October				November				December																					
Time	Height			Time	Height			Time	Height			Time	Height																
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm										
1 Th O	0221	1.3	40		16 F ●	0126	1.4	43		1 Su	0002	1.2	37		16 M	0838	-0.5	-15		1 Tu	0825	-0.3	-9		16 W	0913	-0.8	-24	
	0755	0.8	24			0740	0.6	18			0815	0.2	6			1736	1.8	55			1752	1.5	46			1840	1.4	43	
	1425	1.5	46			1431	1.8	55			1645	1.6	49																
	2052	0.8	24			2054	0.9	27																					
2 F	0222	1.2	37		17 Sa	0133	1.3	40		2 M	0844	0.1	3		17 Tu	0923	-0.6	-18		2 W	0857	-0.4	-12		17 Th	1000	-0.7	-21	
	0814	0.7	21			0814	0.3	9			1740	1.6	49			1843	1.7	52			1835	1.5	46			1924	1.3	40	
	1517	1.5	46			1544	1.8	55																					
	2126	1.0	30			2158	1.1	34																					
3 Sa	0225	1.2	37		18 Su	0136	1.3	40		3 Tu	0916	0.0	0		18 W	1013	-0.5	-15		3 Th	0932	-0.3	-9		18 F	1052	-0.5	-15	
	0840	0.6	18			0853	0.0	0			1835	1.6	49			1953	1.6	49			1917	1.5	46			2004	1.2	37	
	1611	1.6	49			1702	1.8	55																					
	2209	1.1	34																										
31 Sa O	0021	1.2	37																										

Time meridian 90° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

St. Georges Island, Bermuda, 2020

Times and Heights of High and Low Waters

July				August								September											
Time		Height		Time		Height		Time		Height		Time		Height		Time		Height					
h	m	ft	cm	h	m	ft	cm	h	m	ft	cm	h	m	ft	cm	h	m	ft	cm				
1 W	0442	2.4	73	16 Th	0444	2.0	61	1 Sa	0037	0.2	6	16 Su	0007	0.5	15	1 Tu	0150	0.2	6	16 W	0107	0.1	3
	1049	-0.1	-3		1045	0.4	12		0628	2.4	73		0555	2.2	67		0748	2.7	82		0709	2.9	88
	1724	3.1	94		1723	2.7	82		1227	0.0	0		1154	0.2	6		1351	0.1	3		1316	-0.1	-3
	2351	0.1	3		2351	0.5	15		1901	3.2	98		1828	3.0	91		2011	3.1	94		1936	3.4	104
2 Th	0542	2.4	73	17 F	0536	2.0	61	2 Su	0127	0.1	3	17 M	0054	0.3	9	2 W	0226	0.2	6	17 Th	0150	-0.1	-3
	1144	-0.2	-6		1134	0.3	9		0719	2.4	73		0644	2.4	73		0826	2.8	85		0756	3.2	98
	1820	3.2	98		1811	2.8	85		1318	0.0	0		1244	0.1	3		1431	0.1	3		1407	-0.3	-9
									1949	3.2	98		1915	3.2	98		1915	3.2	98		2048	3.0	91	2022	3.4	104
3 F	0048	0.0	0	18 Sa	0039	0.4	12	3 M	0212	0.1	3	18 Tu	0138	0.1	3	3 Th	0300	0.2	6	18 F	0233	-0.2	-6
	0639	2.4	73		0625	2.1	64		0805	2.5	76		0732	2.6	79		0903	2.8	85		0844	3.4	104
	1238	-0.2	-6		1221	0.2	6		1405	-0.1	-3		1334	-0.1	-3		1509	0.1	3		1457	-0.3	-9
	1912	3.3	101		1856	3.0	91		2032	3.2	98		2001	3.4	104		2122	3.0	91		2108	3.4	104

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

St. Georges Island, Bermuda, 2020

Times and Heights of High and Low Waters

October				November				December			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	h m	ft	h m	ft	h m	ft	h m	ft	h m	ft
1 Th	0152 0.2 0800 2.9 1411 0.2 2019 2.9	16 F	0118 -0.2 0734 3.5 1351 -0.3 1958 3.2	1 Su	0218 0.2 0839 3.1 1500 0.2 2056 2.5	16 M	0224 -0.4 0853 3.8 1520 -0.3 2115 2.8	1 Tu	0222 0.2 0849 3.1 1517 0.2 2107 2.3	16 W	0257 -0.4 0927 3.5 1556 -0.3 2150 2.5
2 F	0223 0.2 0834 3.0 1447 0.2 2052 2.8	17 Sa	0203 -0.3 0822 3.7 1442 -0.4 2045 3.2	2 M	0250 0.3 0912 3.1 1536 0.3 2130 2.4	17 Tu	0313 -0.3 0943 3.7 1611 -0.2 2206 2.7	2 W	0258 0.2 0926 3.1 1555 0.2 2145 2.2	17 Th	0347 -0.2 1016 3.3 1644 -0.1 2241 2.4
3 Sa	0254 0.2 0907 3.1 1523 0.2 2125 2.7	18 Su	0248 -0.4 0911 3.8 1534 -0.3 2134 3.0	3 Tu	0322 0.3 0947 3.1 1613 0.3 2205 2.3	18 W	0403 -0.2 1034 3.5 1704 0.0 2300 2.5	3 Th	0334 0.2 1004 3.0 1634 0.2 2224 2.2	18 F	0438 -0.1 1105 3.1 1733 0.0 2333 2.3
4 Su	0324 0.3 0940 3.0 1559 0.3 2158 2.6	19 M	0335 -0.3 1001 3.7 1626 -0.2 2224 2.9	4 W	0356 0.4 1023 3.0 1652 0.4 2243 2.2	19 Th	0456 0.0 1127 3.3 1759 0.2 2357 2.4	4 F	0414 0.3 1045 2.9 1717 0.3 2308 2.1	19 Sa	0530 0.1 1155 2.8 1823 0.1
5 M	0355 0.4 1015 3.0 1635 0.4 2232 2.4	20 Tu	0424 -0.1 1053 3.6 1721 0.0 2318 2.7	5 Th	0433 0.5 1103 2.9 1735 0.5 2325 2.1	20 F	0554 0.3 1225 3.0 1858 0.3	5 Sa	0459 0.3 1130 2.8 1803 0.3 2359 2.1	20 Su	0028 2.2 0626 0.3 1247 2.6 1914 0.3
6 Tu	0427 0.5 1051 2.9 1715 0.5 2308 2.3	21 W	0516 0.1 1148 3.3 1820 0.2	6 F	0515 0.6 1150 2.8 1825 0.6	21 Sa	0100 2.3 0658 0.5 1326 2.7 1959 0.4	6 Su	0552 0.4 1221 2.7 1854 0.3	21 M	0126 2.2 0727 0.5 1341 2.3 2005 0.3
7 W	0502 0.6 1130 2.8 1759 0.7 2349 2.2	22 Th	0017 2.5 0615 0.3 1250 3.1 1925 0.4	7 Sa	0016 2.1 0608 0.6 1245 2.7 1922 0.6	22 Su	0207 2.2 0807 0.6 1430 2.5 2100 0.5	7 M	0058 2.2 0655 0.5 1319 2.6 1950 0.3	22 Tu	0225 2.2 0832 0.6 1437 2.1 2056 0.4
8 Th	0543 0.7 1217 2.7 1850 0.8	23 F	0124 2.3 0723 0.5 1358 2.9 2034 0.5	8 Su	0119 2.1 0713 0.7 1348 2.7 2024 0.6	23 M	0314 2.3 0918 0.7 1532 2.4 2155 0.5	8 Tu	0203 2.3 0807 0.5 1422 2.5 2047 0.2	23 W	0324 2.3 0938 0.6 1534 2.0 2146 0.4
9 F	0040 2.1 0634 0.7 1315 2.6 1952 0.8	24 Sa	0237 2.3 0838 0.6 1509 2.7 2142 0.6	9 M	0228 2.2 0828 0.6 1455 2.7 2125 0.5	24 Tu	0414 2.4 1023 0.6 1628 2.4 2242 0.4	9 W	0310 2.5 0921 0.4 1527 2.5 2145 0.1	24 Th	0418 2.4 1039 0.6 1629 2.0 2233 0.3
10 Sa	0143 2.0 0739 0.8 1422 2.6 2100 0.8	25 Su	0348 2.3 0951 0.6 1615 2.7 2240 0.5	10 Tu	0336 2.4 0942 0.5 1559 2.7 2221 0.3	25 W	0504 2.5 1118 0.5 1717 2.3 2324 0.4	10 Th	0412 2.8 1031 0.2 1630 2.5 2240 -0.1	25 F	0507 2.5 1132 0.5 1719 2.0 2317 0.3
11 Su	0254 2.1 0853 0.7 1530 2.7 2203 0.6	26 M	0449 2.4 1055 0.6 1711 2.7 2328 0.5	11 W	0437 2.7 1049 0.3 1659 2.8 2313 0.1	26 Th	0547 2.7 1205 0.4 1801 2.3	11 F	0511 3.1 1134 0.0 1730 2.5 2334 -0.2	26 Sa	0551 2.6 1219 0.3 1806 2.0
12 M	0403 2.3 1005 0.5 1633 2.9 2258 0.4	27 Tu	0539 2.6 1147 0.5 1757 2.7	12 Th	0533 3.1 1149 0.0 1754 2.9	27 F	0002 0.3 0626 2.8 1247 0.3 1840 2.3	12 Sa	0606 3.4 1232 -0.1 1825 2.6	27 Su	0000 0.2 0633 2.8 1301 0.2 1848 2.1
13 Tu	0502 2.6 1109 0.3 1729 3.0 2348 0.2	28 W	0008 0.4 0620 2.8 1232 0.4 1837 2.7	13 F	0002 -0.2 0624 3.4 1245 -0.2 1846 2.9	28 Sa	0037 0.2 0702 3.0 1326 0.2 1918 2.4	13 Su	0026 -0.4 0658 3.5 1326 -0.3 1919 2.6	28 M	0041 0.1 0712 2.9 1341 0.1 1929 2.1
14 W	0556 2.9 1206 0.1 1821 3.2	29 Th	0043 0.3 0657 2.9 1312 0.3 1914 2.7	14 Sa	0049 -0.3 0714 3.7 1338 -0.3 1936 3.0	29 Su	0112 0.2 0738 3.0 1403 0.2 1955 2.3	14 M	0117 -0.4 0749 3.6 1417 -0.3 2010 2.6	29 Tu	0121 0.0 0751 3.0 1420 0.1 2008 2.2
15 Th	0034 0.0 0646 3.3 1300 -0.2 1910 3.2	30 F	0115 0.3 0732 3.0 1349 0.2 1948 2.6	15 Su	0137 -0.4 0804 3.8 1429 -0.4 2026 2.9	30 M	0147 0.2 0814 3.1 1440 0.2 2031 2.3	15 Tu	0207 -0.4 0838 3.6 1507 -0.3 2100 2.6	30 W	0200 0.0 0830 3.0 1458 0.0 2047 2.2
		31 Sa	0147 0.2 0805 3.1 1425 0.2 2022 2.6							31 Th	0239 0.0 0908 3.0 1536 0.0 2127 2.2

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.
Heights are referred to mean lower low water which is the chart datum of soundings.

Settlement Point, Grand Bahama Island, 2020

Times and Heights of High and Low Waters

July					August					September														
Time		Height			Time		Height			Time		Height			Time		Height							
h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm	
1	W	0402	2.6	79	16	Th	0403	2.2	67	1	Tu	0109	0.4	12	16	W	0025	0.2	6					
		1012	-0.2	-6			1008	0.3	9			0709	3.0	91			0630	3.4	104					
		1646	3.3	101			1644	2.9	88			1311	0.3	9			1237	0.1	3					
		2309	0.1	3			2307	0.5	15			1931	3.4	104			1856	3.8	116					
2	Th	0501	2.6	79	17	F	0454	2.3	70	2	W	0148	0.4	12	17	Th	0111	0.1	3					
		1107	-0.3	-9			1055	0.2	6			0749	3.1	94			0719	3.6	110					
		1741	3.4	104			1731	3.0	91			1352	0.3	9			1329	0.0	0					
							2355	0.4	12			2009	3.4	104			1943	3.8	116					
3	F	0006	0.0	0	18	Sa	0543	2.4	73	3	Th	0224	0.4	12	18	F	0157	-0.1	-3					
		0558	2.6	79			1142	0.1	3			0827	3.1	94			0809	3.8	116					
		1200	-0.3	-9			1816	3.2	98			1432	0.4	12			1421	-0.1	-3					
		1834	3.5	107								2045	3.3	101			2031	3.8	116					
4	Sa	0059	-0.1	-3	19	Su	0041	0.3	9	4	W	0258	0.4	12	19	Sa	0243	-0.1	-3					
		0651	2.6	79			0630	2.5	76			0905	3.1	94			0859	3.9	119					
		1252	-0.3	-9			1229	0.0	0			1511	0.5	15			1514	-0.1	-3					
		1924	3.5	107			1901	3.4	104			2121	3.2	98			2120	3.6	110					
5	Su	0149	-0.1	-3	20	M	0126	0.2	6	5	Th	0332	0.4	12	20	Su	0330	-0.1	-3					
		0742	2.6	79			0717	2.6	79			0942	3.1	94			0950	3.9	119					
		1341	-0.2	-6			1315	0.0	0			1550	0.5	15			1608	0.0	0					
		2012	3.5	107			1946	3.5	107			2157	3.0	91			2211	3.4	104					
6	M	0237	-0.1	-3	21	Tu	0210	0.1	3	6	Sa	0406	0.5	15	21	M	0420	0.0	0					
		0831	2.6	79			0803	2.7	82			1020	3.1	94			1044	3.8	116					
		1429	-0.1	-3			1402	-0.1	-3			1631	0.6	18			1705	0.2	6					
		2058	3.4	104			2030	3.6	110			2233	2.8	85			2305	3.2	98					
7	Tu	0323	0.0	0	22	W	0254	0.0	0	7	Sa	0441	0.6	18	22	Tu	0513	0.1	3					
		0919	2.6	79			0851	2.9	88			1100	3.0	91			1142	3.7	113					
		1516	0.0	0			1451	-0.1	-3			1714	0.8	24			1806	0.4	12					
		2143	3.3	101			2116	3.6	110			2313	2.7	82										
8	W	0408	0.1	3	23	Th	0339	0.0	0	8	Sa	0519	0.7	21	23	W	0004	2.9	88					
		1006	2.6	79			0940	3.0	91			1143	2.9	88			0611	0.3	9					
		1603	0.1	3			1542	0.0	0			1801	0.9	27			1244	3.5	107					
		2226	3.1	94			2203	3.5	107			2356	2.5	76			1912	0.5	15					
9	Th	0451	0.2	6	24	F	0425	0.0	0	9	Su	0601	0.7	21	24	Th	0109	2.8	85					
		1053	2.5	76			1032	3.1	94			1232	2.9	88			0714	0.4	12					
		1650	0.3	9			1636	0.1	3			1855	0.9	27			1350	3.4	104					
		2310	2.9	88			2252	3.4	104								2020	0.6	18					
10	F	0534	0.3	9	25	Sa	0513	0.0	0	10	M	0022	3.0	91	25	F	0218	2.7	82					
		1141	2.5	76			1127	3.1	94			0634	0.2	6			0822	0.5	15					
		1739	0.5	15			1733	0.2	6			1305	3.4	104			1457	3.3	101					
		2354	2.7	82			2345	3.2	98			1927	0.5	15			2127	0.7	21					
11	Sa	0617	0.3	9	26	Su	0604	0.0	0	11	Tu	0124	2.8	85	26	Sa	0326	2.7	82					
		1230	2.5	76			1225	3.2	98			0734	0.3	9			0929	0.6	18					
		1831	0.6	18			1835	0.3	9			1410	3.4	104			1600	3.2	98					
												2036	0.6	18			2227	0.6	18					
12	Su	0040	2.6	79	27	M	0040	3.0	91	12	W	0230	2.7	82	27	Su	0428	2.8	85					
		0701	0.4	12			0658	0.0	0			0838	0.4	12			1030	0.6	18					
		1320	2.5	76			1326	3.2	98			1516	3.3	101			1655	3.2	98					
		1926	0.7	21			1941	0.4	12			2144	0.6	18			2318	0.6	18					
13	M	0128	2.4	73	28	Tu	0141	2.8	85	13	Th	0337	2.7	82	28	M	0520	2.9	88					
		0746	0.4	12			0756	0.1	3			0942	0.4	12			1123	0.5	15					
		1412	2.5	76			1429	3.2	98			1618	3.4	104			1743	3.3	101					
		2023	0.7	21			2049	0.4	12			2246	0.6	18										
14	Tu	0219	2.3	70	29	W	0244	2.7	82	14	Sa	0440	2.7	82	29	Tu	0001	0.5	15					
		0833	0.4	12			0855	0.1	3			1043	0.4	12			0606	3.0	91					
		1504	2.6	79			1532	3.3	101			1715	3.4	104			1210	0.5	15					
		2121	0.7	21			2156	0.4	12			2340	0.5	15			1825	3.3	101					
15	W	0311	2.2	67	30	Th	0348	2.6	79	15	Su	0535	2.8	85	30	W	0040	0.4	12					
		0920	0.4	12			0955	0.1	3			1137	0.4	12			0646	3.1	94					
		1555	2.7	82			1632	3.4	104			1805	3.4	104			1252	0.4	12					
		2216	0.6	18			2258	0.4	12								1903	3.2	98					
					31	F	0449	2.6	79	31	M	0027	0.5	15										
							1053	0.1	3			0624	2.9	88										
							1729	3.4	104			1226	0.3	9										
							2355	0.3	9			1850	3.4	104										

Time meridian 75° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Pages 244 through 259 intentionally omitted

Magueyes Island, Puerto Rico, 2020

Times and Heights of High and Low Waters

April				May				June			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
	<small>h m ft cm</small>		<small>h m ft cm</small>		<small>h m ft cm</small>		<small>h m ft cm</small>		<small>h m ft cm</small>		<small>h m ft cm</small>
1 W ○	0544 0.5 15 1702 -0.2 -6	16 Th	0610 0.4 12 1648 -0.1 -3	1 F	0518 0.6 18 1613 -0.1 -3	16 Sa	0350 0.4 12 1356 0.1 3	1 M	0111 0.5 15 1217 0.1 3 2154 0.5 15	16 Tu	1057 0.0 0 2134 0.6 18
2 Th	0631 0.5 15 1751 -0.2 -6	17 F	0639 0.4 12 1706 0.0 0	2 Sa	0553 0.5 15 1605 0.0 0	17 Su	0347 0.4 12 1250 0.1 3 2215 0.4 12	2 Tu	1152 0.0 0 2139 0.6 18	17 W	1053 0.0 0 2134 0.7 21
3 F	0712 0.5 15 1859 -0.1 -3	18 Sa	0644 0.3 9 1526 0.0 0	3 Su	0607 0.5 15 1452 0.1 3	18 M	1227 0.1 3 2201 0.4 12	3 W	1139 -0.1 -3 2152 0.7 21	18 Th	1102 -0.1 -3 2143 0.7 21
4 Sa	0745 0.5 15 2146 0.0 0	19 Su	0633 0.3 9 1414 0.1 3 2131 0.2 6	4 M	0535 0.4 12 1343 0.1 3 2141 0.4 12	19 Tu	1208 0.0 0 2152 0.5 15	4 Th	1135 -0.2 -6 2216 0.8 24	19 F	1121 -0.2 -6 2203 0.8 24
5 Su	0808 0.5 15 2354 0.1 3	20 M	0137 0.1 3 0624 0.3 9 1347 0.1 3 2049 0.3 9	5 Tu	1308 0.1 3 2145 0.5 15	20 W	1156 -0.1 -3 2150 0.6 18	5 F	1145 -0.2 -6 2247 0.8 24	20 Sa	1145 -0.2 -6 2234 0.8 24
6 M	0810 0.4 12 1528 0.1 3 1954 0.2 6	21 Tu	0313 0.1 3 0611 0.2 6 1318 0.0 0 2104 0.4 12	6 W	1243 0.0 0 2210 0.6 18	21 Th	1159 -0.2 -6 2204 0.6 18	6 Sa	1205 -0.3 -9 2323 0.8 24	21 Su	1211 -0.2 -6 2313 0.8 24 ●
7 Tu	0141 0.1 3 0735 0.3 9 1441 0.1 3 2101 0.3 9	22 W	1256 0.0 0 2136 0.4 12 ●	7 Th	1226 -0.2 -6 2246 0.6 18	22 F	1213 -0.2 -6 2232 0.6 18	7 Su	1232 -0.3 -9	22 M	1238 -0.2 -6 2357 0.8 24
8 W	0351 0.1 3 0632 0.2 6 1400 0.0 0 2207 0.4 12	23 Th	1256 -0.1 -3 2214 0.5 15	8 F	1233 -0.3 -9 2330 0.6 18	23 Sa	1233 -0.3 -9 2312 0.7 21	8 M	0003 0.7 21 1301 -0.3 -9	23 Tu	1305 -0.2 -6
9 Th	1326 -0.1 -3 2321 0.5 15	24 F	1310 -0.2 -6 2300 0.5 15	9 Sa	1254 -0.3 -9	24 Su	1256 -0.3 -9	9 Tu	0041 0.7 21 1331 -0.2 -6	24 W	0041 0.8 24 1329 -0.1 -3
10 F	1331 -0.2 -6	25 Sa	1329 -0.3 -9 2355 0.5 15	10 Su	0022 0.6 18 1322 -0.3 -9	25 M	0000 0.7 21 1323 -0.3 -9	10 W	0111 0.6 18 1359 -0.1 -3	25 Th	0116 0.8 24 1347 0.0 0
11 Sa	0052 0.5 15 1355 -0.3 -9	26 Su	1354 -0.3 -9	11 M	0119 0.6 18 1354 -0.3 -9	26 Tu	0055 0.7 21 1351 -0.3 -9	11 Th	0128 0.6 18 1421 0.0 0	26 F	0133 0.8 24 1354 0.1 3
12 Su	0220 0.5 15 1427 -0.3 -9	27 M	0104 0.5 15 1422 -0.3 -9	12 Tu	0216 0.6 18 1426 -0.3 -9	27 W	0150 0.7 21 1418 -0.2 -6	12 F	0135 0.6 18 1428 0.1 3	27 Sa	0114 0.7 21 1336 0.2 6
13 M	0330 0.5 15 1502 -0.3 -9	28 Tu	0222 0.5 15 1453 -0.3 -9	13 W	0304 0.5 15 1457 -0.2 -6	28 Th	0237 0.7 21 1441 -0.1 -3	13 Sa	0137 0.5 15 1317 0.2 6	28 Su	0030 0.6 18 1154 0.2 6 2323 0.6 18
14 Tu	0431 0.5 15 1539 -0.3 -9	29 W	0333 0.5 15 1525 -0.2 -6	14 Th	0337 0.5 15 1521 -0.1 -3	29 F	0311 0.6 18 1452 0.0 0	14 Su	0124 0.5 15 1132 0.2 6 2237 0.5 15	29 M	1049 0.2 6 2122 0.7 21
15 W	0525 0.4 12 1616 -0.2 -6	30 Th	0431 0.6 18 1554 -0.2 -6	15 F	0349 0.4 12 1524 0.0 0	30 Sa	0320 0.6 18 1438 0.1 3	15 M	1110 0.1 3 2142 0.6 18	30 Tu	1033 0.1 3 2103 0.8 24
		○				31 Su	0238 0.5 15 1323 0.1 3				

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Magueyes Island, Puerto Rico, 2020

Times and Heights of High and Low Waters

July				August				September															
Time		Height																					
h	m	ft	cm																				
1	1032	0.0	0	16	0953	0.0	0	1	1043	-0.1	-3	16	1030	0.0	0	1	1158	0.2	6	16	1149	0.3	9
W	2116	0.8	24	Th	2103	0.8	24	Sa	2154	0.9	27	Su	2125	0.9	27	Tu	2135	0.8	24	W	2118	0.8	24
2	1041	-0.1	-3	17	1021	-0.1	-3	2	1120	-0.1	-3	17	1113	0.0	0	2	1214	0.3	9	17	1237	0.4	12
Th	2139	0.9	27	F	2122	0.8	24	Su	2224	0.9	27	M	2157	0.9	27	W	2121	0.7	21	Th	2102	0.7	21
3	1059	-0.2	-6	18	1054	-0.1	-3	3	1151	0.0	0	18	1151	0.1	3	3	1230	0.4	12	18	0458	0.5	15
F	2208	0.9	27	Sa	2150	0.9	27	M	2245	0.8	24	Tu	2227	0.9	27	Th	2116	0.7	21	F	0805	0.6	18
4	1124	-0.2	-6	19	1127	-0.1	-3	4	1216	0.0	0	19	1223	0.1	3	4	0531	0.4	12	19	1322	0.5	15
Sa	2240	0.8	24	Su	2224	0.9	27	Tu	2250	0.8	24	W	2248	0.9	27	F	0802	0.5	15	Sa	2019	0.7	21
5	1153	-0.2	-6	20	1159	-0.1	-3	5	1238	0.1	3	20	1244	0.2	6	5	0804	0.4	12	20	0410	0.5	15
Su	2312	0.8	24	M	2301	0.9	27	W	2245	0.8	24	Th	2245	0.8	24	Sa	0938	0.5	15	Su	1015	0.6	18
○				●				6	1258	0.2	6	21	1250	0.4	12	6	1304	0.4	12	21	1639	0.5	15
6	1221	-0.2	-6	21	1228	-0.1	-3	6	2245	0.7	21	21	2210	0.7	21	6	2053	0.6	18	21	1856	0.6	18
M	2340	0.8	24	Tu	2337	0.9	27	Th	2245	0.7	21	F	2210	0.7	21	Su	0413	0.4	12	M	0249	0.3	9
7	1248	-0.1	-3	22	1252	0.0	0	7	1314	0.3	9	22	1219	0.5	15	7	0405	0.3	9	22	1536	0.8	24
Tu	2357	0.7	21	W				F	2246	0.7	21	Sa	2122	0.7	21	M	1736	0.7	21	Tu	0309	0.2	6
8	1314	0.0	0	23	0006	0.9	27	8	1319	0.4	12	23	0657	0.4	12	8	0426	0.2	6	23	1624	0.8	24
W				Th	1309	0.1	3	Sa	2236	0.6	18	Su	1902	0.7	21	Tu	1742	0.7	21	W	0344	0.1	3
9	0004	0.7	21	24	0014	0.8	24	9	0756	0.4	12	24	0641	0.3	9	9	0459	0.2	6	24	0344	0.1	3
Th	1335	0.1	3	F	1313	0.2	6	Su	2132	0.6	18	M	1800	0.8	24	W	1800	0.7	21	Th	1713	0.9	27
10	0008	0.7	21	25	1249	0.3	9	10	0737	0.3	9	25	0631	0.2	6	10	0459	0.2	6	25	0427	0.1	3
F	1348	0.2	6	Sa	2301	0.7	21	M	1945	0.7	21	Tu	1822	0.8	24	Th	1800	0.7	21	F	1804	0.9	27
11	0009	0.6	18	26	0947	0.3	9	11	0727	0.2	6	26	0634	0.1	3	11	0539	0.1	3	26	0515	0.1	3
Sa	1327	0.3	9	Su	2155	0.7	21	Tu	1936	0.7	21	W	1858	0.9	27	Th	1828	0.8	24	F	1852	0.8	24
12	1003	0.3	9	27	0905	0.3	9	12	0739	0.2	6	27	0630	0.1	3	12	0630	0.1	3	27	0610	0.1	3
Su	2244	0.6	18	M	2004	0.7	21	W	1944	0.8	24	Th	1902	0.8	24	F	1902	0.8	24	Sa	1934	0.8	24
●				●				13	0810	0.1	3	28	0711	0.1	3	13	0734	0.1	3	28	0610	0.1	3
13	0942	0.2	6	28	0859	0.2	6	13	2000	0.8	24	28	1937	0.9	27	13	1937	0.9	27	28	0723	0.2	6
M	2102	0.6	18	Tu	1958	0.8	24	Th	2000	0.8	24	F	2017	0.9	27	Su	2011	0.9	27	M	2006	0.8	24
14	0932	0.1	3	29	0907	0.1	3	14	0853	0.0	0	29	0815	0.1	3	14	0846	0.1	3	29	1035	0.3	9
Tu	2050	0.7	21	W	2019	0.9	27	F	2024	0.9	27	Sa	2017	0.9	27	M	2011	0.9	27	M	2020	0.7	21
15	0935	0.1	3	30	0929	0.0	0	15	0941	0.0	0	30	0932	0.1	3	15	0955	0.2	6	30	1156	0.3	9
W	2052	0.8	24	Th	2049	0.9	27	Sa	2053	0.9	27	Su	2054	0.9	27	Tu	2042	0.9	27	Tu	2006	0.7	21
16	1032	0.0	0	31	1003	-0.1	-3	31	1129	0.1	3	31	1040	0.1	3	15	1056	0.2	6	31	1255	0.4	12
Th	2103	0.8	24	F	2121	0.9	27	M	2142	0.8	24	M	2125	0.8	24	W	2106	0.9	27	W	1948	0.7	21

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

San Juan, Puerto Rico, 2020

Times and Heights of High and Low Waters

April				May				June			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>
1 W O	0257 1.4 43 0938 0.5 15 1405 0.7 21 2028 -0.1 -3	16 Th	0431 1.3 40 1109 0.4 12 1616 0.8 24 2213 0.1 3	1 F	0324 1.5 46 1001 0.3 9 1514 0.9 27 2115 0.0 0	16 Sa	0428 1.2 37 1057 0.3 9 1659 1.0 30 2251 0.3 9	1 M	0430 1.3 40 1054 0.0 0 1734 1.4 43 2338 0.3 9	16 Tu	0440 1.0 30 1103 0.0 0 1818 1.3 40
2 Th	0359 1.4 43 1036 0.4 12 1515 0.8 24 2132 -0.1 -3	17 F	0523 1.2 37 1156 0.3 9 1716 0.9 27 2321 0.1 3	2 Sa	0419 1.4 43 1048 0.3 9 1628 1.0 30 2227 0.0 0	17 Su	0509 1.1 34 1131 0.2 6 1754 1.1 34	2 Tu	0519 1.2 37 1139 -0.1 -3 1835 1.6 49	17 W	0046 0.5 15 0519 0.9 27 1140 0.0 0 1905 1.4 43
3 F	0458 1.4 43 1130 0.4 12 1628 0.9 27 2242 -0.1 -3	18 Sa	0608 1.2 37 1234 0.3 9 1812 1.0 30	3 Su	0512 1.4 43 1134 0.2 6 1737 1.2 37 2342 0.1 3	18 M	0002 0.4 12 0546 1.0 30 1203 0.1 3 1845 1.2 37	3 W	0055 0.3 9 0608 1.1 34 1226 -0.3 -9 1933 1.8 55	18 Th	0149 0.5 15 0600 0.8 24 1219 -0.1 -3 1950 1.6 49
4 Sa	0554 1.5 46 1219 0.3 9 1738 1.0 30 2352 -0.1 -3	19 Su	0026 0.2 6 0648 1.1 34 1305 0.2 6 1904 1.1 34	4 M	0602 1.3 40 1218 0.0 0 1841 1.4 43	19 Tu	0107 0.4 12 0623 0.9 27 1235 0.0 0 1932 1.3 40	4 Th	0205 0.3 9 0659 1.0 30 1313 -0.3 -9 2029 1.9 58	19 F	0243 0.5 15 0643 0.8 24 1300 -0.1 -3 2033 1.6 49
5 Su	0646 1.4 43 1303 0.2 6 1844 1.2 37	20 M	0123 0.2 6 0725 1.1 34 1333 0.2 6 1952 1.2 37	5 Tu	0055 0.1 3 0651 1.2 37 1302 -0.1 -3 1941 1.6 49	20 W	0204 0.4 12 0700 0.9 27 1307 0.0 0 2016 1.4 43	5 F O	0309 0.3 9 0751 0.9 27 1401 -0.4 -12 2122 1.9 58	20 Sa	0330 0.5 15 0728 0.8 24 1341 -0.2 -6 2116 1.7 52
6 M	0100 -0.1 -3 0735 1.4 43 1344 0.1 3 1946 1.3 40	21 Tu	0213 0.2 6 0759 1.0 30 1400 0.1 3 2037 1.3 40	6 W	0203 0.1 3 0739 1.1 34 1346 -0.2 -6 2038 1.8 55	21 Th	0255 0.4 12 0737 0.8 24 1341 -0.1 -3 2058 1.5 46	6 Sa	0408 0.3 9 0843 0.8 24 1449 -0.3 -9 2213 1.9 58	21 Su	0415 0.5 15 0814 0.7 21 1423 -0.2 -6 2158 1.8 55
7 Tu O	0204 -0.1 -3 0822 1.3 40 1425 0.0 0 2046 1.5 46	22 W ●	0301 0.2 6 0832 0.9 27 1429 0.0 0 2118 1.4 43	7 Th O	0308 0.1 3 0827 1.0 30 1430 -0.3 -9 2133 1.9 58	22 F ●	0344 0.4 12 0815 0.8 24 1415 -0.1 -3 2138 1.6 49	7 Su	0503 0.3 9 0936 0.8 24 1539 -0.3 -9 2303 1.8 55	22 M	0459 0.4 12 0902 0.7 21 1508 -0.2 -6 2240 1.8 55
8 W	0307 -0.1 -3 0907 1.2 37 1507 -0.2 -6 2143 1.7 52	23 Th	0347 0.3 9 0905 0.9 27 1459 0.0 0 2158 1.4 43	8 F	0410 0.1 3 0915 0.9 27 1516 -0.3 -9 2227 1.9 58	23 Sa	0431 0.4 12 0853 0.7 21 1451 -0.1 -3 2218 1.6 49	8 M	0557 0.3 9 1029 0.8 24 1631 -0.2 -6 2352 1.7 52	23 Tu	0540 0.4 12 0951 0.8 24 1557 -0.1 -3 2323 1.8 55
9 Th	0409 0.0 0 0951 1.1 34 1551 -0.2 -6 2239 1.7 52	24 F	0434 0.3 9 0936 0.8 24 1530 0.0 0 2237 1.5 46	9 Sa	0511 0.2 6 1004 0.8 24 1604 -0.3 -9 2319 1.9 58	24 Su	0518 0.4 12 0931 0.7 21 1530 -0.1 -3 2258 1.7 52	9 Tu	0647 0.3 9 1123 0.8 24 1724 -0.1 -3	24 W	0620 0.4 12 1045 0.8 24 1650 -0.1 -3
10 F	0512 0.1 3 1035 1.0 30 1636 -0.3 -9 2335 1.8 55	25 Sa	0522 0.3 9 1008 0.8 24 1604 -0.1 -3 2316 1.5 46	10 Su	0611 0.2 6 1054 0.8 24 1655 -0.2 -6	25 M	0604 0.4 12 1012 0.7 21 1613 -0.1 -3 2340 1.7 52	10 W	0040 1.6 49 0733 0.3 9 1220 0.8 24 1818 0.0 0	25 Th	0006 1.7 52 0657 0.4 12 1145 0.9 27 1747 0.0 0
11 Sa	0615 0.1 3 1121 0.9 27 1725 -0.3 -9	26 Su	0609 0.3 9 1041 0.7 21 1641 -0.1 -3 2357 1.5 46	11 M	0013 1.8 55 0707 0.3 9 1146 0.8 24 1748 -0.2 -6	26 Tu	0647 0.4 12 1057 0.7 21 1701 -0.1 -3	11 Th	0127 1.5 46 0814 0.3 9 1323 0.8 24 1913 0.2 6	26 F	0050 1.7 52 0734 0.3 9 1252 1.0 30 1848 0.1 3
12 Su	0032 1.7 52 0717 0.2 6 1210 0.8 24 1816 -0.2 -6	27 M	0656 0.4 12 1117 0.7 21 1723 -0.1 -3	12 Tu	0107 1.6 49 0801 0.3 9 1243 0.8 24 1843 -0.1 -3	27 W	0025 1.7 52 0728 0.4 12 1148 0.7 21 1755 -0.1 -3	12 F	0210 1.4 43 0850 0.3 9 1429 0.9 27 2009 0.3 9	27 Sa	0134 1.6 49 0812 0.2 6 1404 1.1 34 1953 0.2 6
13 M	0131 1.6 49 0818 0.3 9 1304 0.8 24 1910 -0.1 -3	28 Tu	0042 1.5 46 0743 0.4 12 1200 0.7 21 1812 -0.1 -3	13 W	0202 1.5 46 0851 0.3 9 1347 0.8 24 1940 0.0 0	28 Th	0112 1.6 49 0807 0.4 12 1250 0.8 24 1854 0.0 0	13 Sa O	0250 1.2 37 0923 0.2 6 1534 1.0 30 2109 0.4 12	28 Su O	0219 1.4 43 0851 0.1 3 1516 1.3 40 2102 0.3 9
14 Tu O	0232 1.5 46 0917 0.3 9 1405 0.7 21 2007 -0.1 -3	29 W	0132 1.5 46 0828 0.4 12 1252 0.7 21 1907 -0.1 -3	14 Th O	0255 1.4 43 0937 0.3 9 1454 0.8 24 2039 0.1 3	29 F O	0201 1.6 49 0846 0.3 9 1402 0.9 27 1957 0.1 3	14 Su	0328 1.1 34 0954 0.2 6 1633 1.1 34 2216 0.5 15	29 M	0304 1.3 40 0933 0.0 0 1624 1.4 43 2218 0.4 12
15 W	0333 1.4 43 1015 0.3 9 1511 0.8 24 2108 0.0 0	30 Th O	0227 1.5 46 0915 0.4 12 1358 0.8 24 2008 0.0 0	15 F	0344 1.3 40 1020 0.3 9 1559 0.9 27 2142 0.2 6	30 Sa	0251 1.5 46 0927 0.2 6 1517 1.0 30 2105 0.2 6	15 M	0404 1.0 30 1027 0.1 3 1728 1.2 37 2331 0.5 15	30 Tu	0352 1.2 37 1019 -0.1 -3 1726 1.6 49 2340 0.5 15
						31 Su	0341 1.4 43 1009 0.1 3 1628 1.2 37 2219 0.2 6				

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Charlotte Amalie, St. Thomas Island, 2020

Times and Heights of High and Low Waters

July				August				September																																						
Time	Height			Time	Height			Time	Height			Time	Height																																	
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm		h	m	ft	cm																											
1 W	1100	-0.1	-3	27	16 Th	1035	-0.1	-3	24	1 Sa	1156	-0.1	-3	30	16 Su	1121	0.0	0	0	1 Tu	1336	0.2	6	27	16 W	0331	0.6	18	18	0648	0.7	21	21	1309	0.3	9	9	2039	1.1	34	34					
2 Th	1130	-0.2	-6	27	17 F	1106	-0.1	-3	27	2 Su	1243	-0.1	-3	30	17 M	1209	0.0	0	34	2 W	0434	0.5	15	18	17 Th	0341	0.6	18	24	0726	0.6	18	24	1425	0.3	9	12	2140	0.9	27	2106	1.0	30	2106	1.0	30
3 F	1206	-0.2	-6	30	18 Sa	1142	-0.2	-6	27	3 M	1328	-0.1	-3	30	18 Tu	1300	0.0	0	34	3 Th	0442	0.5	15	18	18 F	0355	0.5	15	27	0830	0.6	18	27	1517	0.4	12	15	2157	0.8	24	2130	0.9	27	2130	0.9	27
4 Sa	1244	-0.3	-9	30	19 Su	1220	-0.2	-6	30	4 Tu	1411	0.0	0	27	19 W	1354	0.1	3	34	4 F	0453	0.5	15	21	19 Sa	0411	0.5	15	27	0932	0.7	21	27	1616	0.4	12	15	2211	0.8	24	2146	0.7	21	2146	0.7	21
5 Su	1325	-0.2	-6	27	20 M	1301	-0.2	-6	30	5 W	1453	0.1	3	27	20 Th	0540	0.5	15	18	5 Sa	0505	0.5	15	21	20 Su	0431	0.4	12	30	0830	0.6	18	30	1726	0.5	15	15	2224	0.7	21	2151	0.6	18	2151	0.6	18
6 M	1405	-0.2	-6	27	21 Tu	1345	-0.1	-3	30	6 Th	1538	0.2	6	24	21 F	0552	0.5	15	18	6 Su	0517	0.4	12	24	21 M	0457	0.3	9	34	1142	0.8	24	15	1849	0.5	15	18	2236	0.6	18	1253	1.1	34	1253	1.1	34
7 Tu	1445	-0.1	-3	27	22 W	1432	-0.1	-3	30	7 F	0657	0.4	12	15	22 Sa	0608	0.4	12	21	7 M	0533	0.4	12	24	22 Tu	0532	0.2	6	34	1123	0.7	21	15	2031	0.5	15	18	2237	0.6	18	1412	1.1	34	1412	1.1	34
8 W	1524	0.0	0	0	23 Th	1525	0.1	3	30	8 Sa	0708	0.4	12	15	23 Su	0630	0.3	9	24	8 Tu	0555	0.3	9	24	23 W	0619	0.2	6	34	1302	0.8	24	15	1926	0.5	15	21	2326	0.7	21	1526	1.1	34	1526	1.1	34
9 Th	0021	0.8	24	3	24 F	0754	0.3	9	12	9 Su	0723	0.3	9	18	24 M	0656	0.3	9	27	9 W	0627	0.3	9	27	24 Th	0720	0.2	6	34	1351	0.6	18	15	1927	0.5	15	15	1531	0.9	27	1631	1.1	34	1631	1.1	34
10 F	0046	0.8	24	6	25 Sa	0019	0.9	27	9	10 M	0006	0.6	18	9	25 Tu	0731	0.2	6	30	10 Th	0712	0.2	6	27	25 F	0829	0.2	6	34	0902	0.2	6	9	1248	0.5	15	12	1802	0.4	12	1728	1.1	34	1728	1.1	34
11 Sa	0107	0.7	21	6	26 Su	0041	0.8	24	6	11 Tu	0008	0.5	15	6	26 W	0813	0.1	3	30	11 F	0805	0.2	6	30	26 Sa	0940	0.2	6	34	0901	0.2	6	9	1501	0.6	18	15	2003	0.5	15	1817	1.1	34	1817	1.1	34
12 Su	0124	0.6	18	6	27 M	0053	0.6	18	3	12 W	0833	0.1	3	24	27 Th	0905	0.1	3	30	12 Sa	0903	0.2	6	34	27 Su	1048	0.3	9	30	0911	0.2	6	12	0843	0.1	3	21	1630	0.7	21	1857	1.0	30	1857	1.0	30
13 M	0136	0.6	18	3	28 Tu	0911	0.1	3	24	13 Th	0908	0.1	3	27	28 F	1001	0.0	0	30	13 Su	1002	0.2	6	34	28 M	0239	0.4	12	30	0926	0.1	3	18	1733	0.8	24	1928	1.0	30	1928	1.0	30				
14 Tu	0136	0.5	15	3	29 W	0945	0.0	0	27	14 F	0950	0.0	0	27	29 Sa	1059	0.1	3	30	14 M	1102	0.2	6	34	29 Tu	0236	0.5	15	18	0945	0.1	3	12	1827	0.9	27	1251	0.4	12	1952	0.9	27	1251	0.4	12	
15 W	1008	0.0	0	21	30 Th	1024	-0.1	-3	30	15 Sa	1034	0.0	0	30	30 Su	1154	0.1	3	30	15 Tu	0327	0.5	15	18	30 W	0242	0.5	15	21	1008	0.0	0	12	1918	1.0	30	1351	0.4	12	2010	0.9	27	2010	0.9	27	
					31 F	1109	-0.1	-3	30					31 M	1246	0.1	3	30																												

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Lime Tree Bay, St. Croix Island, 2020

Times and Heights of High and Low Waters

July				August				September											
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height						
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm					
1 W	1000	0.0	0	27	16 Th	0945	0.0	0	27	1 Sa	1040	-0.1	-3	30					
	2139	0.9	27							16 Su	1027	1.0	30						
2 Th	1022	-0.1	-3	27	17 F	1018	-0.1	-3	27	2 Su	1127	-0.1	-3	27	17 M	1113	0.0	0	34
	2156	0.9	27												1254	0.3	9	24	
3 F	1053	-0.2	-6	27	18 Sa	1055	-0.1	-3	30	3 M	1211	0.0	0	27	18 Tu	1156	0.1	3	30
	2225	0.9	27												1329	0.4	12	24	
4 Sa	1130	-0.2	-6	27	19 Su	1133	-0.1	-3	30	4 Tu	1249	0.0	0	27	19 W	1235	0.1	3	30
	2300	0.9	27												12308	1.0	30		
5 Su	1209	-0.2	-6	27	20 M	1210	-0.1	-3	30	5 W	1322	0.1	3	27	20 Th	1309	0.3	9	27
	2335	0.9	27												2233	0.9	27		
6 M	1248	-0.2	-6	27	21 Tu	1246	-0.1	-3	30	6 Th	1349	0.2	6	24	21 F	1336	0.4	12	24
															2154	0.8	24		
7 Tu	0003	0.9	27	-3	22 W	1319	0.0	0		7 F	1410	0.3	9	24	22 Sa	0626	0.5	15	18
	1325	-0.1	-3												0846	0.6	18		
8 W	0010	0.8	24	0	23 Th	0009	1.0	30	3	8 Sa	1423	0.4	12	21	23 Su	0543	0.5	15	21
	1357	0.0	0												1050	0.7	21		
9 Th	0004	0.8	24	3	24 F	1407	0.2	6	27	9 Su	0657	0.4	12	15	24 M	0531	0.4	12	24
	1424	0.1	3												1120	0.5	15		
10 F	0005	0.8	24	6	25 Sa	1413	0.4	12	24	10 M	0646	0.4	12	21	25 Tu	0552	0.3	9	27
	1441	0.2	6												2049	0.7	21		
11 Sa	0006	0.7	21	9	26 Su	0833	0.4	12	15	11 Tu	0657	0.3	9	24	26 W	0633	0.1	3	27
	1440	0.3	9												1954	0.8	24		
12 Su	0937	0.4	12	21	27 M	0805	0.4	12	24	12 W	0726	0.2	6	24	27 Th	0727	0.1	3	30
	2319	0.7	21												1959	1.0	30		
13 M	0909	0.3	9	21	28 Tu	0809	0.2	6	27	13 Th	0806	0.1	3	27	28 F	0826	0.0	0	30
	2142	0.7	21												2037	1.0	30		
14 Tu	0905	0.2	6	24	29 W	0833	0.1	3	27	14 F	0851	0.1	3	27	29 Sa	0928	0.0	0	27
	2100	0.8	24												2114	0.9	27		
15 W	0920	0.1	3	24	30 Th	0909	0.0	0	30	15 Sa	0939	0.0	0	30	30 Su	1029	0.1	3	27
	2058	0.8	24												2147	0.9	27		
					31 F	0953	-0.1	-3	30	31 M	1124	0.1	3	27					

Time meridian 60° W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to mean lower low water which is the chart datum of soundings.

Isla Zapara (Malecon), Venezuela, 2020

Times and Heights of High and Low Waters

July				August				September			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
h m	ft	h m	ft	h m	ft	h m	ft	h m	ft	h m	ft
1 W	0046 5.0 152 0733 0.2 6 1350 4.0 122 1923 1.6 49	16 Th	0055 4.4 134 0741 0.9 27 1357 3.6 110 1904 2.2 67	1 Sa	0218 4.8 146 0907 0.0 0 1547 4.1 125 2121 2.0 61	16 Su	0135 4.6 140 0812 0.5 15 1448 3.9 119 2003 2.0 61	1 Tu	0341 4.4 134 1024 0.8 24 1701 4.1 125 2257 2.1 64	16 W	0239 4.8 146 0905 0.5 15 1535 4.5 137 2130 1.5 46
2 Th	0135 5.0 152 0826 0.0 0 1452 4.1 125 2024 1.8 55	17 F	0130 4.4 134 0814 0.7 21 1442 3.7 113 1945 2.2 67	2 Su	0308 4.7 143 0958 0.1 3 1641 4.1 125 2219 2.1 64	17 M	0216 4.7 143 0853 0.3 9 1531 4.1 125 2054 2.0 61	2 W	0427 4.2 128 1108 1.1 34 1744 4.0 122 2350 2.1 64	17 Th	0333 4.8 146 0954 0.6 18 1623 4.6 140 2229 1.3 40
3 F	0225 4.9 149 0919 -0.1 -3 1554 4.1 125 2125 2.0 61	18 Sa	0207 4.4 134 0850 0.5 15 1527 3.8 116 2030 2.2 67	3 M	0357 4.6 140 1048 0.3 9 1734 4.1 125 2318 2.2 67	18 Tu	0302 4.7 143 0938 0.3 9 1616 4.2 128 2148 1.9 58	3 Th	0514 4.0 122 1151 1.4 43 1826 4.0 122	18 F	0432 4.7 143 1047 0.8 24 1715 4.7 143 2333 1.1 34
4 Sa	0317 4.8 146 1012 -0.1 -3 1655 4.1 125 2229 2.1 64	19 Su	0246 4.5 137 0929 0.4 12 1613 3.9 119 2119 2.3 70	4 Tu	0447 4.4 134 1136 0.6 18 1825 4.1 125	19 W	0351 4.7 143 1024 0.4 12 1704 4.3 131 2248 1.8 55	4 F	0043 2.1 64 0604 3.8 116 1232 1.7 52 1907 3.9 119	19 Sa	0536 4.5 137 1145 1.0 30 1812 4.7 143
5 Su	0411 4.6 140 1106 0.0 0 1755 4.1 125 2334 2.2 67	20 M	0328 4.5 137 1011 0.3 9 1700 4.0 122 2213 2.3 70	5 W	0017 2.2 67 0537 4.1 125 1224 0.9 27 1914 4.1 125	20 Th	0446 4.6 140 1114 0.5 15 1755 4.4 134 2352 1.7 52	5 Sa	0135 2.1 64 0656 3.6 110 1314 1.9 58 1948 3.9 119	20 Su	0039 0.9 27 0647 4.4 134 1248 1.2 37 1913 4.7 143
6 M	0506 4.4 134 1159 0.2 6 1854 4.2 128	21 Tu	0414 4.5 137 1056 0.3 9 1748 4.1 125 2311 2.2 67	6 Th	0117 2.2 67 0630 3.9 119 1311 1.2 37 2000 4.1 125	21 F	0547 4.5 137 1208 0.7 21 1848 4.5 137	6 Su	0225 2.0 61 0753 3.5 107 1355 2.1 64 2029 3.9 119	21 M	0147 0.7 21 0801 4.2 128 1356 1.5 46 2017 4.7 143
7 Tu	0040 2.2 67 0602 4.2 128 1252 0.5 15 1950 4.2 128	22 W	0505 4.4 134 1144 0.4 12 1837 4.2 128	7 F	0215 2.2 67 0724 3.7 113 1356 1.5 46 2042 4.1 125	22 Sa	0058 1.5 46 0653 4.3 131 1306 0.9 27 1945 4.6 140	7 M	0311 1.8 55 0850 3.4 104 1437 2.2 67 2109 3.9 119	22 Tu	0254 0.5 15 0917 4.2 128 1507 1.6 49 2120 4.7 143
8 W	0146 2.2 67 0700 4.0 122 1344 0.8 24 2042 4.2 128	23 Th	0014 2.2 67 0602 4.3 131 1234 0.5 15 1928 4.4 134	8 Sa	0311 2.1 64 0821 3.5 107 1439 1.7 52 2121 4.1 125	23 Su	0207 1.2 37 0806 4.2 128 1407 1.2 37 2043 4.7 143	8 Tu	0352 1.7 52 0946 3.4 104 1519 2.3 70 2149 3.9 119	23 W	0359 0.3 9 1029 4.2 128 1616 1.6 49 2222 4.8 146
9 Th	0249 2.2 67 0758 3.8 116 1434 1.1 34 2128 4.3 131	24 F	0120 2.0 61 0704 4.2 128 1327 0.7 21 2020 4.5 137	9 Su	0400 1.9 58 0918 3.4 104 1520 1.9 58 2158 4.1 125	24 M	0313 0.9 27 0920 4.1 125 1513 1.4 43 2142 4.8 146	9 W	0428 1.5 46 1038 3.4 104 1559 2.3 70 2228 4.0 122	24 Th	0500 0.2 6 1135 4.3 131 1721 1.7 52 2320 4.8 146
10 F	0347 2.0 61 0856 3.7 113 1521 1.3 40 2208 4.3 131	25 Sa	0227 1.7 52 0812 4.1 125 1423 0.9 27 2112 4.7 143	10 M	0443 1.7 52 1014 3.4 104 1559 2.1 64 2233 4.1 125	25 Tu	0418 0.6 18 1034 4.1 125 1619 1.5 46 2240 4.8 146	10 Th	0502 1.2 37 1125 3.5 107 1640 2.3 70 2305 4.1 125	25 F	0557 0.2 6 1235 4.3 131 1821 1.7 52
11 Sa	0439 1.9 58 0952 3.6 110 1604 1.6 49 2244 4.3 131	26 Su	0332 1.4 43 0923 4.0 122 1522 1.1 34 2204 4.8 146	11 Tu	0520 1.5 46 1106 3.4 104 1635 2.1 64 2309 4.2 128	26 W	0518 0.3 9 1143 4.1 125 1724 1.6 49 2335 4.9 149	11 F	0537 1.0 30 1208 3.7 113 1722 2.2 67 2343 4.3 131	26 Sa	0015 4.8 146 0651 0.2 6 1328 4.3 131 1916 1.7 52
12 Su	0525 1.7 52 1046 3.5 107 1643 1.8 55 2317 4.3 131	27 M	0434 1.0 30 1034 4.0 122 1622 1.3 40 2255 4.9 149	12 W	0553 1.3 40 1154 3.5 107 1712 2.2 67 2344 4.2 128	27 Th	0615 0.1 3 1246 4.2 128 1825 1.7 52	12 Sa	0614 0.8 24 1248 3.8 116 1806 2.1 64	27 Su	0106 4.7 143 0741 0.4 12 1417 4.3 131 2008 1.7 52
13 M	0604 1.5 46 1137 3.5 107 1718 2.0 61 2349 4.3 131	28 Tu	0533 0.6 18 1143 4.0 122 1723 1.5 46 2347 4.9 149	13 Th	0624 1.1 34 1240 3.6 110 1751 2.2 67	28 F	0029 4.9 149 0710 0.1 3 1345 4.2 128 1924 1.7 52	13 Su	0023 4.5 137 0653 0.6 18 1328 4.0 122 1852 2.0 61	28 M	0153 4.6 140 0828 0.6 18 1501 4.3 131 2058 1.8 55
14 Tu	0639 1.3 40 1225 3.5 107 1751 2.1 64	29 W	0629 0.3 9 1249 4.0 122 1824 1.6 49	14 F	0019 4.3 131 0658 0.8 24 1323 3.7 113 1832 2.1 64	29 Sa	0120 4.8 146 0801 0.1 3 1438 4.2 128 2019 1.8 55	14 M	0105 4.7 143 0735 0.5 15 1408 4.1 125 1941 1.8 55	29 Tu	0239 4.5 137 0913 0.9 27 1541 4.2 128 2146 1.8 55
15 W	0022 4.3 131 0710 1.1 34 1312 3.5 107 1826 2.1 64	30 Th	0038 5.0 152 0723 0.1 3 1351 4.1 125 1924 1.8 55	15 Sa	0056 4.5 137 0733 0.6 18 1406 3.8 116 1916 2.1 64	30 Su	0208 4.8 146 0851 0.3 9 1529 4.2 128 2112 1.9 58	15 Tu	0150 4.8 146 0818 0.4 12 1450 4.3 131 2033 1.7 52	30 W	0323 4.3 131 0954 1.3 40 1618 4.1 125 2232 1.9 58
		31 F	0128 4.9 149 0816 0.0 0 1450 4.1 125 2023 1.9 58			31 M	0255 4.6 140 0938 0.5 15 1616 4.1 125 2205 2.0 61				

Time meridian 67° 30' W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

Amuay, Venezuela, 2020

Times and Heights of High and Low Waters

April				May				June			
Time	Height	Time	Height	Time	Height	Time	Height	Time	Height	Time	Height
<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>	<small>h m</small>	<small>ft cm</small>
1 W	0025 0.7 21 0325 0.6 18 0823 1.0 30 1645 -0.4 -12	16 Th	0042 1.0 30 0524 0.5 15 1131 1.0 30 1758 -0.2 -6	1 F	0006 1.0 30 0420 0.7 21 0913 1.0 30 1649 -0.2 -6	16 Sa	0037 1.2 37 0615 0.5 15 1215 0.8 24 1737 0.2 6	1 M	0000 1.4 43 0620 0.1 3 1243 0.8 24 1738 0.2 6	16 Tu	0031 1.3 40 0719 0.1 3 1430 0.7 21 1742 0.6 18
2 Th	0051 0.8 24 0422 0.6 18 0941 1.0 30 1732 -0.4 -12	17 F	0121 1.0 30 0613 0.5 15 1228 1.0 30 1837 -0.1 -3	2 Sa	0025 1.1 34 0519 0.5 15 1046 1.0 30 1734 -0.2 -6	17 Su	0105 1.2 37 0657 0.4 12 1320 0.8 24 1809 0.3 9	2 Tu	0026 1.5 46 0715 -0.1 -3 1408 0.8 24 1822 0.4 12	17 W	0037 1.3 40 0753 0.0 0 1539 0.8 24 1813 0.7 21
3 F	0115 0.8 24 0517 0.4 12 1053 1.1 34 1817 -0.4 -12	18 Sa	0155 1.0 30 0657 0.4 12 1324 0.9 27 1911 0.0 0	3 Su	0046 1.1 34 0616 0.3 9 1211 1.0 30 1818 0.0 0	18 M	0128 1.2 37 0735 0.2 6 1425 0.8 24 1839 0.4 12	3 W	0056 1.6 49 0808 -0.3 -9 1527 0.9 27 1908 0.6 18	18 Th	0032 1.3 40 0828 -0.1 -3
4 Sa	0139 0.8 24 0612 0.3 9 1201 1.1 34 1901 -0.3 -9	19 Su	0225 1.0 30 0739 0.3 9 1420 0.9 27 1941 0.2 6	4 M	0109 1.2 37 0712 0.1 3 1333 0.9 27 1902 0.1 3	19 Tu	0142 1.2 37 0812 0.1 3 1533 0.8 24 1908 0.6 18	4 Th	0128 1.6 49 0901 -0.5 -15 1643 0.9 27 1955 0.7 21	19 F	0035 1.4 43 0906 -0.2 -6
5 Su	0203 0.9 27 0708 0.2 6 1309 1.1 34 1945 -0.2 -6	20 M	0249 0.9 27 0819 0.2 6 1519 0.8 24 2010 0.3 9	5 Tu	0136 1.3 40 0808 -0.1 -3 1454 0.9 27 1946 0.3 9	20 W	0139 1.2 37 0849 0.0 0 1645 0.8 24 1936 0.7 21	5 F	0203 1.6 49 0954 -0.6 -18 1755 1.0 30 2046 0.8 24	20 Sa	0054 1.4 43 0944 -0.3 -9
6 M	0230 1.0 30 0806 0.0 0 1421 1.0 30 2029 -0.1 -3	21 Tu	0303 0.9 27 0859 0.1 3 1624 0.8 24 2037 0.5 15	6 W	0206 1.4 43 0904 -0.3 -9 1616 0.9 27 2033 0.5 15	21 Th	0118 1.2 37 0926 -0.1 -3	6 Sa	0240 1.6 49 1047 -0.6 -18 1903 1.1 34 2143 0.9 27	21 Su	0124 1.5 46 1025 -0.4 -12
7 Tu	0300 1.0 30 0905 -0.1 -3 1539 0.9 27 2115 0.1 3	22 W	0250 0.9 27 0939 0.1 3 1738 0.7 21 2105 0.6 18	7 Th	0240 1.4 43 1001 -0.4 -12 1738 0.9 27 2122 0.6 18	22 F	0119 1.2 37 1006 -0.2 -6	7 Su	0319 1.5 46 1139 -0.5 -15 2003 1.1 34 2247 1.0 30	22 M	0201 1.5 46 1107 -0.4 -12
8 W	0334 1.1 34 1005 -0.2 -6 1704 0.9 27 2203 0.2 6	23 Th	0211 0.9 27 1021 0.0 0 1859 0.8 24 2133 0.7 21	8 F	0316 1.4 43 1058 -0.5 -15 1856 1.0 30 2218 0.8 24	23 Sa	0139 1.3 40 1047 -0.2 -6	8 M	0400 1.4 43 1230 -0.5 -15 2055 1.1 34	23 Tu	0245 1.4 43 1151 -0.4 -12
9 Th	0412 1.1 34 1107 -0.3 -9 1832 0.9 27 2255 0.4 12	24 F	0216 1.0 30 1105 -0.1 -3	9 Sa	0357 1.4 43 1156 -0.5 -15 2008 1.1 34 2321 0.9 27	24 Su	0211 1.3 40 1131 -0.3 -9	9 Tu	0001 1.0 30 0443 1.2 37 1320 -0.4 -12 2140 1.2 37	24 W	0334 1.4 43 1235 -0.3 -9 2127 1.1 34
10 F	0455 1.1 34 1211 -0.4 -12 1956 0.9 27 2353 0.6 18	25 Sa	0240 1.1 34 1153 -0.1 -3	10 Su	0445 1.3 40 1255 -0.5 -15 2110 1.1 34	25 M	0250 1.4 43 1217 -0.3 -9	10 W	0124 1.0 30 0536 1.1 34 1406 -0.2 -6 2219 1.2 37	25 Th	0022 1.0 30 0432 1.2 37 1320 -0.3 -9 2145 1.1 34
11 Sa	0547 1.1 34 1316 -0.5 -15 2112 0.9 27	26 Su	0315 1.1 34 1242 -0.2 -6	11 M	0033 0.9 27 0544 1.2 37 1352 -0.4 -12 2204 1.2 37	26 Tu	0338 1.3 40 1305 -0.3 -9 2229 1.1 34	11 Th	0252 0.8 24 0730 0.9 27 1449 -0.1 -3 2254 1.2 37	26 F	0147 0.8 24 0545 1.1 34 1404 -0.2 -6 2205 1.2 37
12 Su	0059 0.6 18 0651 1.1 34 1421 -0.5 -15 2217 1.0 30	27 M	0402 1.1 34 1334 -0.2 -6	12 Tu	0153 0.9 27 0706 1.1 34 1447 -0.3 -9 2249 1.2 37	27 W	0032 1.0 30 0436 1.3 40 1352 -0.3 -9 2244 1.1 34	12 F	0418 0.7 21 0923 0.8 24 1527 0.0 0 2324 1.2 37	27 Sa	0306 0.6 18 0734 0.9 27 1449 0.0 0 2228 1.3 40
13 M	0211 0.7 21 0806 1.1 34 1523 -0.4 -12 2312 1.0 30	28 Tu	0500 1.1 34 1425 -0.3 -9 2327 1.0 30	13 W	0314 0.8 24 0837 1.0 30 1537 -0.2 -6 2330 1.2 37	28 Th	0156 1.0 30 0546 1.2 37 1439 -0.3 -9 2301 1.1 34	13 Sa	0523 0.6 18 1050 0.7 21 1603 0.2 6 2351 1.3 40	28 Su	0418 0.4 12 1002 0.8 24 1534 0.1 3 2253 1.4 43
14 Tu	0323 0.7 21 0920 1.0 30 1620 -0.4 -12	29 W	0209 0.9 27 0613 1.1 34 1515 -0.3 -9 2347 1.0 30	14 Th	0426 0.7 21 0957 1.0 30 1622 -0.1 -3	29 F	0312 0.8 24 0716 1.0 30 1524 -0.2 -6 2318 1.2 37	14 Su	0608 0.4 12 1207 0.7 21 1637 0.3 9	29 M	0521 0.1 3 1149 0.8 24 1620 0.3 9 2322 1.5 46
15 W	0000 1.0 30 0428 0.6 18 1029 1.0 30 1712 -0.3 -9	30 Th	0317 0.8 24 0738 1.1 34 1603 -0.3 -9	15 F	0006 1.2 37 0526 0.6 18 1109 0.9 27 1702 0.0 0	30 Sa	0420 0.6 18 0911 0.9 27 1609 -0.1 -3 2338 1.3 40	15 M	0014 1.3 40 0644 0.3 9 1319 0.7 21 1710 0.4 12	30 Tu	0618 -0.1 -3 1316 0.8 24 1706 0.5 15 2355 1.6 49
						31 Su	0522 0.4 12 1108 0.8 24 1654 0.1 3				

Time meridian 67° 30' W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

Amuay, Venezuela, 2020

Times and Heights of High and Low Waters

July				August				September						
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height	
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm
1 W	0712	-0.3	-9		16 Th	0722	-0.1	-3		1 Sa	0059	1.6	49	
	1432	0.8	24			1526	0.8	24			0840	-0.4	-12	
	1753	0.6	18			1734	0.7	21			1627	1.0	30	
						2347	1.4	43			1922	0.9	27	
2 Th	0030	1.6	49		17 F	0759	-0.2	-6		2 Su	0141	1.6	49	
	0804	-0.5	-15			0925	-0.4	-12			0840	-0.2	-6	
	1542	0.9	27			1718	1.1	34			1642	1.0	30	
	1841	0.7	21			2012	0.9	27			1943	0.9	27	
3 F	0106	1.7	52		18 Sa	0009	1.5	46		3 M	0220	1.5	46	
	0854	-0.5	-15			0837	-0.3	-9			1008	-0.3	-9	
	1648	1.0	30				1807	1.1	34			1712	1.1	34
	1930	0.8	24			2104	0.9	27			2042	0.8	24	
4 Sa	0144	1.6	49		19 Su	0041	1.5	46		4 Tu	0256	1.4	43	
	0943	-0.6	-18			0916	-0.3	-9			1047	-0.2	-6	
	1749	1.0	30				1852	1.1	34			1741	1.1	34
	2021	0.9	27			2201	0.9	27			2146	0.8	24	
5 Su	0222	1.6	49		20 M	0119	1.5	46		5 W	0326	1.3	40	
	1031	-0.5	-15			0956	-0.4	-12			1123	0.0	0	
	1846	1.0	30				2303	0.9	27			1232	1.1	34
	2117	0.9	27							2303	0.9	27		
6 M	0259	1.5	46		21 Tu	0203	1.5	46		6 Th	0349	1.1	34	
	1117	-0.4	-12			1038	-0.4	-12			1157	0.1	3	
	1938	1.1	34			1916	1.0	30			2009	1.1	34	
	2218	1.0	30			2141	0.9	27						
7 Tu	0333	1.3	40		22 W	0251	1.4	43		7 F	0013	0.8	24	
	1201	-0.3	-9			1120	-0.3	-9			0413	1.0	30	
	2024	1.1	34			1943	1.0	30			1229	0.3	9	
	2328	1.0	30			2256	0.9	27			2041	1.1	34	
8 W	0403	1.2	37		23 Th	0345	1.3	40		8 Sa	0129	0.7	21	
	1242	-0.2	-6			1203	-0.2	-6			0717	0.8	24	
	2104	1.1	34			2008	1.1	34			1302	0.4	12	
										2109	1.1	34		
9 Th	0047	0.9	27		24 F	0016	0.8	24		9 Su	0245	0.6	18	
	0429	1.0	30			0453	1.1	34			0927	0.8	24	
	1320	0.0	0			1246	-0.1	-3			1337	0.5	15	
	2139	1.1	34			2035	1.2	37			2132	1.2	37	
10 F	0214	0.8	24		25 Sa	0137	0.6	18		10 M	0350	0.5	15	
	0500	0.9	27			0632	1.0	30			1058	0.8	24	
	1356	0.1	3			1332	0.1	3			1415	0.6	18	
	2209	1.2	37			2104	1.3	40			2150	1.2	37	
11 Sa	0346	0.6	18		26 Su	0256	0.4	12		11 Tu	0440	0.3	9	
	0906	0.7	21			0858	0.8	24			1212	0.8	24	
	1431	0.2	6			1418	0.2	6			1457	0.7	21	
	2236	1.2	37			2137	1.4	43			2202	1.3	40	
12 Su	0455	0.5	15		27 M	0407	0.2	6		12 W	0522	0.2	6	
	1045	0.7	21			1049	0.8	24			1313	0.9	27	
	1507	0.4	12			1507	0.4	12			1542	0.8	24	
	2259	1.2	37			2213	1.5	46			2214	1.3	40	
13 M	0536	0.3	9		28 Tu	0511	0.0	0		13 Th	0602	0.1	3	
	1207	0.7	21			1215	0.9	27			1406	0.9	27	
	1542	0.5	15			1558	0.6	18			1628	0.8	24	
	2318	1.3	40			2252	1.6	49			2237	1.4	43	
14 Tu	0611	0.2	6		29 W	0609	-0.2	-6		14 F	0641	-0.1	-3	
	1319	0.7	21			1329	0.9	27			1452	1.0	30	
	1619	0.6	18			1649	0.7	21			1714	0.9	27	
	2330	1.3	40			2333	1.6	49			2310	1.5	46	
15 W	0646	0.0	0		30 Th	0702	-0.4	-12		15 Sa	0721	-0.1	-3	
	1425	0.8	24			1433	1.0	30			1533	1.0	30	
	1657	0.7	21			1741	0.8	24			1800	0.9	27	
	2336	1.3	40							2349	1.6	49		
					31 F	0016	1.7	52		31 M	0145	1.5	46	
				0752		-0.4	-12		0856		-0.1	-3		
				1532		1.0	30		1631		1.2	37		
						1832	0.9	27			2013	0.9	27	

Time meridian 67° 30' W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time. Heights are referred to the chart datum of soundings.

Suriname River Entrance, Surinam, 2020

Times and Heights of High and Low Waters

July				August				September									
Time	Height		Time	Height		Time	Height		Time	Height		Time	Height				
	h	m	ft	cm		h	m	ft	cm		h	m	ft	cm			
1 W	0054	7.2	219			16 Su	0206	6.8	207	1 Tu	0352	7.4	226	16 W	0334	8.0	244
	0715	1.3	40				0829	1.5	46		1006	1.1	34		0948	0.4	12
	1329	7.0	213				1445	6.8	207		1615	7.3	223		1559	8.1	247
	1936	1.5	46				2049	1.8	55		2220	1.2	37		2208	0.4	12
2 Th	0150	7.5	229			2 Su	0317	7.3	223	17 M	0429	7.6	232	17 Th	0418	8.4	256
	0811	1.0	30				0938	1.2	37		1041	0.9	27		1030	0.1	3
	1425	7.1	216				1551	7.0	213		1649	7.5	229		1640	8.5	259
	2029	1.4	43				2153	1.6	49		2139	1.3	40		2255	0.9	27
3 F	0241	7.6	232			3 M	0403	7.5	229	18 Tu	0504	7.8	238	18 F	0501	8.7	265
	0903	0.9	27				1022	1.0	30		1114	0.8	24		1111	-0.1	-3
	1515	7.2	223				1632	7.2	219		1721	7.7	235		1720	8.7	265
	2117	1.4	43				2235	1.4	43		2225	0.8	24		2327	0.8	24
4 Sa	0329	7.8	238			4 Tu	0445	7.6	232	19 W	0435	8.2	250	4 F	0537	7.9	241
	0950	0.7	21				1102	0.9	27		1051	0.3	9		1145	0.8	24
	1602	7.3	223				1711	7.3	223		1702	8.0	244		1752	7.8	238
	2203	1.3	40				2314	1.2	37		2308	0.5	15		2359	0.7	21
5 Su	0414	7.8	238			5 W	0524	7.7	235	20 Th	0519	8.4	256	5 Sa	0609	7.8	238
	1034	0.7	21				1139	0.9	27		1133	0.1	3		1216	0.9	27
	1645	7.3	223				1747	7.4	226		1744	8.2	250		1823	7.7	235
	2246	1.3	40				2351	1.1	34		2351	0.3	9		1855	7.6	232
6 M	0456	7.8	238			6 Th	0601	7.7	235	21 F	0603	8.5	259	6 Su	0032	0.8	24
	1116	0.8	24				1214	0.9	27		1215	0.2	6		0642	7.7	235
	1727	7.2	219				1822	7.4	226		1825	8.3	253		1248	1.0	30
	2328	1.3	40												1855	7.6	232
7 Tu	0538	7.7	235			7 F	0028	1.1	34	22 Sa	0035	0.2	6	7 M	0106	0.9	27
	1157	0.9	27				0638	7.6	232		0647	8.4	256		0717	7.4	226
	1807	7.2	219				1250	1.1	34		1258	0.4	12		1322	1.3	40
							1858	7.3	223		1907	8.2	250		1929	7.3	223
8 W	0009	1.4	43			8 Sa	0105	1.2	37	23 Su	0119	0.4	12	8 Tu	0143	1.2	37
	0620	7.5	229				0715	7.4	226		0732	8.0	244		0754	7.1	216
	1238	1.1	34				1326	1.2	37		1341	0.7	21		1400	1.7	52
	1848	7.1	216				1935	7.2	219		1952	7.9	241		2008	7.0	213
9 Th	0051	1.5	46			9 Su	0143	1.3	40	24 M	0206	0.7	21	9 W	0225	1.5	46
	0702	7.3	223				0754	7.2	219		0820	7.6	232		0838	6.7	204
	1319	1.3	40				1405	1.5	46		1428	1.2	37		1444	2.1	64
	1930	6.9	210				2014	7.0	213		2039	7.5	229		2054	6.7	204
10 F	0134	1.7	52			10 M	0225	1.5	46	25 Tu	0258	1.1	34	10 Th	0316	1.9	58
	0746	7.1	216				0837	6.9	210		0913	7.0	213		0934	6.2	189
	1402	1.5	46				1447	1.8	55		1521	1.8	55		1540	2.5	76
	2014	6.8	207				2057	6.8	207		2134	7.0	213		2154	6.3	192
11 Sa	0221	1.8	55			11 Tu	0311	1.8	55	26 W	0357	1.6	49	11 F	0423	2.2	67
	0832	6.8	207				0925	6.6	201		1016	6.5	198		1046	6.0	183
	1448	1.8	55				1534	2.1	64		1622	2.3	70		1654	2.8	85
	2101	6.6	201				2147	6.5	198		2238	6.6	201		2312	6.1	186
12 Su	0311	2.0	61			12 W	0405	2.0	61	27 Th	0508	1.9	58	12 Sa	0545	2.3	70
	0923	6.6	201				1022	6.3	192		1130	6.1	186		1212	6.0	183
	1538	2.0	61				1631	2.4	73		1737	2.6	79		1821	2.7	82
	2152	6.5	198				2246	6.3	192		2354	6.4	195		1821	2.7	82
13 M	0405	2.1	64			13 Th	0509	2.2	67	28 F	0627	2.1	64	13 Su	0036	6.3	192
	1019	6.4	195				1128	6.1	186		1250	6.1	186		0706	2.0	61
	1633	2.2	67				1738	2.5	76		1856	2.6	79		1328	6.3	192
	2248	6.4	195				2353	6.3	192						1936	2.2	67
14 Tu	0504	2.2	67			14 F	0620	2.1	64	29 Sa	0111	6.4	195	14 M	0148	6.8	207
	1118	6.3	192				1240	6.1	186		0740	2.0	61		0810	1.5	46
	1730	2.3	70				1848	2.5	76		1400	6.3	192		1427	6.9	210
	2346	6.4	195								2005	2.3	70		2034	1.6	49
15 W	0605	2.1	64			15 Sa	0103	6.5	198	30 Su	0217	6.7	204	15 Tu	0245	7.4	226
	1219	6.3	192				0729	1.9	58		0839	1.7	52		0903	0.9	27
	1829	2.2	67				1347	6.4	195		1455	6.6	201		1516	7.5	229
							1953	2.2	67		2059	1.9	58		2124	1.0	30
					31 F	0126	6.9	210	31 M	0309	7.0	213					
						0752	1.5	46		0927	1.4	43					
						1409	6.6	201		1538	7.0	213					
						2012	2.0	61		2143	1.6	49					

Time meridian 52° 30' W. 0000 is midnight. 1200 is noon. Times are not adjusted for Daylight Saving Time.

Heights are referred to the chart datum of soundings.

Seasonal variations in sea level have not been included in these predictions.

EXTRA TIDES, 2020

Woods Hole, Massachusetts				Rio de Janeiro, Brazil				May				November				September			
h	m	ft	cm	h	m	ft	cm	h	m	ft	cm	h	m	ft	cm	h	m	ft	cm
March				January				1	645	1.0	30	20	1732	3.3	100	23	1609	3.0	90
1	191	3	0	18	2043	3.0	90	11	2254	2.6	80	21	1826	3.0	90		2054	2.3	70
2	201	0	0	February				12	2349	2.6	80	22	1951	3.0	90		2253	2.3	70
16	214	9	0	h	m	ft	cm	28	2228	3.0	90	Santos, Brazil				24	2045	2.3	70
17	225	7	0	15	1854	3.3	100	June					2353	2.6	80				
31	194	4	0	2234	2.3	70	h	m	ft	cm	February					2258	2.3	70	
April				16	1554	1.6	50	10	2302	2.3	70	h	m	ft	cm		2204	2.3	70
1	204	8	0	2000	3.0	90	11	2347	2.3	70	16	2009	3.0	90	22	1526	3.3	100	
14	213	5	0	2247	2.6	80	July				2156	3.0	90	2019	2.3	70			
15	224	2	0	17	1706	1.3	40	h	m	ft	cm	17	1623	2.0	60	2204	2.3	70	
16	234	2	0	March				27	2356	2.3	70		2258	2.6	80				
29	192	7	0	h	m	ft	cm	29	1753	1.6	50		2258	2.6	80				
May				2	951	3.0	90	2200	2.6	80	March					2258	2.6	80	
13	211	2	0	2254	2.6	80	August				h	m	ft	cm	21	1536	3.3	100	
14	221	7	0	14	1741	3.6	110	h	m	ft	cm	15	1802	3.6	110	2002	2.6	80	
September				2149	2.3	70	24	2309	2.0	60	2354	2.6	80	2154	2.6	80			
9	204	5	0	2313	2.3	70	25	2221	2.0	60	1909	3.0	90	1547	3.0	90			
10	214	1	0	15	1826	3.3	100	26	1619	2.0	60	2124	2.6	80	1904	2.6	80		
11	222	9	0	2154	2.3	70	1926	2.6	80	April				2232	3.0	90			
25	231	3	0	16	1526	1.6	50	2256	2.0	60	h	m	ft	cm					
October				1936	2.6	80	27	1747	2.0	60	14	2115	3.0	90					
9	211	1	0	2200	2.3	70	2058	2.3	70	May									
10	215	9	0	17	1651	1.3	40	2336	2.3	70	h	m	ft	cm					
24	224	9	0	31	1915	3.0	90	September				13	2202	3.0	90				
25	234	0	0	2154	2.6	80	h	m	ft	cm	14	2215	3.0	90					
November				2359	2.6	80	10	1545	2.0	60	July								
7	204	0	0	April				1913	2.6	80	h	m	ft	cm					
8	212	7	0	h	m	ft	cm	22	2326	1.6	50	27	2324	3.0	90				
21	212	5	0	2	709	1.0	30	23	1800	3.0	90	29	2053	2.3	70				
22	221	8	0	12	1721	3.6	110	2204	1.6	50	August								
23	230	6	0	2108	2.3	70	1853	2.6	80	h	m	ft	cm						
				2311	2.6	80	2238	2.0	60	11	2334	2.3	70						
				13	1809	3.0	90	25	2311	2.3	70	12	2332	2.6	80				
				2119	2.3	70	October				25	2311	2.6	80					
				14	1500	1.6	50	h	m	ft	cm	26	1658	3.0	90				
				1919	2.6	80	9	839	2.6	80	2109	2.3	70						
				2138	2.6	80	2343	2.0	60										
				15	1617	1.3	40	21	1700	3.3	100								
				29	2323	3.0	90	2138	1.3	40									
								2258	1.3	40									
								22	1741	3.0	90								
								2202	1.6	50									
								2349	1.6	50									
								23	1834	2.6	80								
								2247	2.0	60									

TABLE 2. — TIDAL DIFFERENCES AND OTHER CONSTANTS

EXPLANATION OF TABLE

The publication of full daily predictions is necessarily limited to a comparatively small number of stations. Tide predictions for many other places, however, can be obtained by applying certain differences to the predictions for the reference stations in Table 1. The following pages list the places called "subordinate stations" for which such predictions can be made, and the differences or ratios to be used. These differences or ratios are to be applied to the predictions for the proper reference station which is listed in Table 2 in boldface type above the differences for the subordinate station. The stations in this table are arranged in geographical order. The index to stations at the end of this volume will assist in locating a particular station.

Caution.— The time and height differences listed in Table 2 are average difference derived from comparisons of simultaneous tide observations at the subordinate location and its reference station. Because these figures are constant, they may not always provide for the daily variations of the actual tide, especially if the subordinate station is some distance from the reference station. Therefore, although the application of the time and height differences will generally provide reasonable accurate approximations, they cannot result in predictions as accurate as those listed for the reference stations which are based upon much larger periods of analyses and which do provide for daily variations.

Time differences.—To determine the time of high water or low water at any station listed in this table there is given in the columns headed "Differences, Time" the hours and minutes to be added to or subtracted from the time of high or low water at some reference station. A plus (+) sign indicates that the tide at the subordinate station is later than at the reference station and the difference should be added; a minus (–) sign indicates that it is earlier and should be subtracted.

To obtain the tide at a subordinate station on any date, apply the difference to the tide at the reference station for that same date. In some cases, however, to obtain an a.m. tide it may be necessary to use the preceding day's p.m. tide at the reference station (or to obtain a p.m. tide it may be necessary to use the following day's a.m. tide). For example, if a high water at a reference station occurs at 0200 on July 17, and the tide at the subordinate station occurs 5 hour earlier, the high water at the subordinate station will occur at 2100 on July 16. For the second case, if a high water occurs at a reference station at 2200 on July 2, and the tide at the subordinate station occurs 3 hours later, then high water will occur at 0100 on July 3 at the subordinate station. The necessary allowance for change in date when the international date line is crossed is included in the time difference. In such cases use the same date at the reference station as desired for the subordinate station as explained above.

The results obtained by the application of the time differences will be in the kind of time indicated by the time meridian shown above the name of the subordinate station. Differences in time meridians between a subordinate station and its reference station have been accounted for and no further adjustment by the reader is necessary. Summer or daylight-saving time is not used in the tide tables.

Height differences.—The height of the tide, referred to the datum of charts, is obtained by means of the height differences or ratios. A plus (+) sign indicates that the difference should be added to the height at the reference station, and a minus (–) sign indicates that it should be subtracted. All height differences, ranges, and levels in Table 2 are in feet but may be converted to centimeters by the use of Table 7.

Ratio.— For some stations, use of predicted height difference would give unsatisfactory predictions. In such cases they have been omitted and one or two ratios are given (*). Where two ratios are given, one in the "height of high water" column and one in the "height of low water" column, the high waters and low waters at the reference station should be multiplied by these respective ratios. Where only one is given, the omitted ratio is either unreliable or unknown.

TABLE 2. — TIDAL DIFFERENCES AND OTHER CONSTANTS

For some subordinate stations there is given in parentheses a ratio as well as a correction in feet. In those instances, each predicted high and low water at the reference station should first be multiplied by the ratio and then the correction in feet is added to or subtracted from each product as indicated.

As an example, at Port of Spain, Trinidad, the values in the time and height difference columns in Table 2 are given as -0 44, -1 12, and (*0.31 + 1.4) as referred to the reference station at Punta Gorda, Venezuela. If we assume that the tide predictions in column (1) below are those of Ketchikan on a particular day, application of the time and height correction in columns (2) and (3) would result in the tide predictions for Treadwell Bay in column (4).

(1)		(2)	(3)	(4)		
<i>Time</i> <i>h.m.</i>	<i>Height</i> <i>ft.</i>	<i>Time</i> <i>Corrections</i>	<i>Height</i> <i>Corrections</i>	<i>Time</i> <i>h.m.</i>	<i>Height</i> <i>ft.</i>	<i>Height</i> <i>centimeters</i>
0326	0.6	-1 ^h 12 ^m	x0.31 + 1.4	0214	1.6	49
0900	5.1	-0 ^h 44 ^m	x0.31 + 1.4	0816	3.0	91
1608	-0.3	-1 ^h 12 ^m	x0.31 + 1.4	1456	1.3	40
2148	5.4	-0 ^h 44 ^m	x0.31 + 1.4	2104	3.1	94

Range. — The mean range is the difference in height between mean high water (MHW) and mean low water (MLW). The *spring range* is the average semidiurnal range occurring semimonthly as a result of the Moon being new or full. It is larger than the mean range where the type of tide is either semidiurnal or mixed, and is of not practical significance where the type of tide is diurnal. Where the tide is chiefly of the diurnal type the table gives the *diurnal range*, which is the difference in height between mean higher high water and mean lower low water.

Datum. — The datum of the predictions obtained through the height differences or ratios is also the datum of the largest scale chart for the locality. To obtain the depth at the time of high or low water, the predicted height should be added to the depth on the chart unless such height is negative (–), when it should be subtracted. To find the height at times between high and low water see Table 3. On some charts the depths are given in meters or centimeters and in such cases the heights of the tide can be converted to other units by the use of Table 7. Chart datums for the portion of the world covered by these tables are approximately as follows: *Mean lower low water* for the Pacific coast of the United States, Alaska, and the Hawaiian Islands, mean low water springs for Central American and Mexico. For the rest of the area covered by these tables the datums generally used are approximately *mean low water springs*, *Indian spring low water*, or the *lowest possible low water*.

Mean Tide Level (Half-Tide Level). — The mean tide level is a plane midway between mean low water and mean high water. Tabular values are reckoned from chart depth.

Observations Supporting Predictions.— All tidal predictions made by the National Ocean Service are based upon observations taken at the location in question. For most reference stations these observations often are of a continuing nature. As such, they are used to quality control the predictions and to update the harmonic constants used in generating annual predictions. For subordinate stations, the age and duration of their observations vary from a few days of observation taken decades ago to the most recent survey data.

The precision with which the position, ranges and mean tide level are reported in Table 2 is an indication of the age and analytical history of the supporting observation. Stations whose position is reported to the nearest tenth minute of latitude and longitude and whose ranges and mean tide level are reported to the nearest hundredth foot are supported by the most recent observations, analyzed with regard to current chart datums and the 1983-2001 National Tidal Datum Epoch. Stations whose position is reported to the nearest tenth minute but whose ranges and mean tide level are reported to the nearest tenth foot are typically supported by observations taken in the 1960's and 1970's with analysis based upon the previous National Tidal Datum Epochs. Finally, stations whose positions are reported to the nearest minute and whose ranges and mean tide level are reported to the nearest tenth foot indicated either older supporting observations or simply data not yet reviewed and entered into the Tables with full published precision. NOS is in the continuous process of updating the Tables with all available data.

TABLE 2. — TIDAL DIFFERENCES AND OTHER CONSTANTS

Old observations are not in and of themselves an indication of poor present predictions. Certain coastal areas do not undergo much human or natural modification while other coastal areas are subject to nearly constant modification by both agents. Local knowledge of conditions is still very important to the wise use of these astronomical predictions.

NOTE. — Dashes are entered in the place of data which are unknown, unreliable, or not applicable.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
		North	West	h	m	ft	ft	ft	ft	
ARCTIC ARCHIPELAGO										
				on Hampton Roads, p.120						
	Time meridian, local									
1	Princess Royal Islands	72° 45'	117° 45'	+3 14	+3 32	0.0	+0.2	2.3	3.0	1.4
3	Mercy Bay, Banks Island	74° 07'	118° 15'	+4 05	+4 05	-0.8	+0.1	1.6	2.0	1.0
5	Winter Harbour, Melville Island	74° 47'	110° 48'	+4 44	+4 40	+0.2	+0.2	2.5	3.2	1.6
7	Bridport Inlet, Melville Island	74° 56'	108° 49'	+4 33	+4 33	+1.3	+1.0	2.8	4.1	2.5
9	Byam Martin Island	75° 10'	103° 34'	+3 42	+3 42	+1.8	+1.5	2.8	3.7	3.0
11	Cambridge Bay, Dease Strait	69° 07'	105° 07'	+2 35	+2 30	-0.4	+1.2	1.0	1.3	1.7
on Harrington Harbour, p.12										
	Time meridian, 75° W									
13	Igloodik, Fury and Hecla Strait	69° 21'	81° 37'	+9 12	+9 12	+1.6	+0.8	4.6	6.0	4.7
15	Hall Beach, Foxe Basin	68° 45'	81° 13'	+9 45	+10 15	(*0.45+0.5)		1.7	2.0	2.1
on Hampton Roads, p.120										
	Time meridian, local									
17	Port Kennedy, Bellot Strait	72° 01'	94° 12'	+1 35	+1 44	+0.5	+0.8	3.5	4.5	4.2
19	Port Bowen, Prince Regent Inlet	73° 14'	88° 55'	+1 01	+1 06	+0.9	+1.3	3.4	4.5	4.6
21	Port Leopold, Prince Regent Inlet	73° 48'	90° 15'	+0 50	+0 45	+0.9	+0.1	4.6	5.9	4.0
23	Beechy Island, Barrow Strait	74° 43'	91° 54'	+1 30	+1 35	+1.0	-0.1	4.9	6.4	4.0
25	Assistance Bay, Barrow Strait	74° 37'	94° 15'	+1 56	+1 57	-0.1	+0.6	3.1	4.1	3.8
27	Griffith Island, Barrow Strait	74° 35'	95° 30'	+2 12	+2 13	-0.3	+0.5	3.0	3.9	3.6
29	Refuge Cove, Wellington Channel	75° 31'	92° 10'	+1 23	+1 38	+0.6	+0.2	4.2	5.5	3.9
31	Penny Strait	76° 52'	97° 00'	+1 53	+2 03	*0.39	*0.38	1.5	1.9	1.4
on Hampton Roads, p.120										
33	Cape Columbia, Lincoln Sea	83° 14'	69° 55'	-0 55	-0 55	-1.8	0.0	0.8	1.1	0.5
35	Alert, Lincoln Sea	82° 30'	62° 20'	+1 26	+1 17	-0.4	+0.6	1.6	2.2	1.5
37	Cape Sheridan, Lincoln Sea	82° 29'	61° 30'	+1 37	+1 28	-0.5	+0.2	1.8	2.5	1.2
39	Cape Bryant, North Greenland	82° 21'	55° 30'	+3 33	+3 35	-1.4	+0.2	1.1	1.5	0.7
41	Cape Morris Jesup, North Greenland	83° 40'	34° 15'	+1 51	+1 43	-2.0	0.0	0.4	0.6	0.3
on Harrington Harbour, p.12										
GREENLAND										
East Coast										
43	Danmarks Havn	76° 46'	18° 46'	-12 41	-12 32	-0.8	-0.6	3.6	4.7	2.8
45	Cape Borgen	75° 26'	18° 05'	-11 04	-11 03	*0.80	*0.81	3.0	3.9	2.8
47	Lille Pendulum	74° 37'	18° 29'	-11 40	-11 39	*0.80	*0.81	3.0	4.0	2.8
49	Finsch Islands	73° 59'	21° 08'	-12 18	-12 18	*0.81	*0.75	3.2	4.3	2.8
51	Myggbukta, Foster Bay	73° 28'	21° 33'	-11 57	-12 00	-0.9	-0.5	3.4	4.4	2.8
53	Blomsterbugten	73° 21'	25° 17'	-12 15	-12 27	-0.4	-0.3	3.7	4.8	3.2
on Harrington Harbour, p.12										
	Time meridian, 30° W									
55	Danmarks Island, Scoresby Sound	70° 27'	26° 12'	-11 45	-11 45	*0.63	*0.62	2.4	3.3	2.2
on Harrington Harbour, p.12										
	Time meridian, 45° W									
57	Angmagssalik (Kulusuk)	65° 36'	37° 09'	-7 00	-6 50	(*1.71-0.8)		6.5	8.8	5.2
on Argentina, p.4										
59	Finnsbu	63° 24'	41° 17'	-4 09	-3 42	+0.8	-0.4	6.1	8.1	4.6
61	Kap Farvel	59° 45'	43° 53'	-2 21	-1 53	+0.2	-0.9	6.0	8.0	4.0
on West Coast										
63	Frederiksdal	60° 00'	44° 40'	-2 10	-1 41	+1.5	-0.7	7.1	9.5	4.7
65	Nanortalik	60° 07'	45° 15'	-2 43	-2 16	+0.5	-0.9	6.3	8.4	4.2
67	Julianehaab	60° 43'	46° 01'	-2 09	-1 46	+0.3	-0.9	6.1	8.0	4.0
69	Narsarsuaq	61° 08'	45° 25'	-2 15	-1 46	+1.8	+0.1	6.6	8.6	5.3
71	Ivigut, Arsuk Fjord	61° 12'	48° 11'	-1 49	-1 24	+0.7	-0.9	6.5	8.6	4.3
73	Frederikshaab	62° 00'	49° 43'	-1 22	-1 00	+3.0	-0.6	8.5	11.1	5.6
75	Godthaab	64° 10'	51° 44'	-1 21	-0 46	(*2.00-2.1)		9.8	13.0	6.5
77	Fishmaster's Harbour, Sondre Stromfjord	66° 01'	53° 29'	-1 41	-1 16	+3.6	-0.1	8.6	10.2	6.1
79	Camp Lloyd, Sondre Stromfjord	66° 58'	50° 57'	+2 21	+2 51	+1.7	-1.1	7.7	9.4	4.7
81	Holsteinsborg	66° 56'	53° 42'	-1 29	-1 00	+2.0	-0.8	7.7	10.0	5.0
83	Camp Michigan, Maligiak Fjord	66° 56'	52° 37'	-0 22	+0 10	+2.2	-0.8	7.9	10.2	5.1
on Harrington Harbour, p.12										
85	Aningaq, Rifkol	67° 55'	53° 50'	-1 42	-1 42	+1.0	-0.8	5.6	7.4	3.6
87	Nunarssuaq, Kronprinsens Ejlanden	68° 59'	53° 21'	-0 48	-0 52	-0.5	-0.9	4.2	5.7	2.8
89	Godhavn, Disko Island	69° 15'	53° 33'	-1 37	-1 32	-0.4	-0.9	4.3	5.7	2.9
91	Ingnerit, Umanak Fjord	71° 00'	51° 00'	+0 00	+0 00	-1.6	-1.1	3.3	4.3	2.2
on West Coast										
	Time meridian, local									
93	North Star Bay, Wolstenholme Fjord	76° 32'	68° 50'	+0 30	+0 32	*1.33	*1.12	5.4	7.0	4.5
95	Port Foulke	78° 18'	72° 45'	+0 28	+0 26	(*2.08-0.8)		7.9	10.7	6.5
97	Rensselaer Bugt	78° 37'	70° 53'	+1 05	+0 58	(*2.08-1.1)		7.9	10.8	6.2
99	Thank God Harbor, Polaris Bugt	81° 36'	61° 40'	+1 34	+1 31	-0.3	-0.4	3.9	5.4	3.2

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
	NORTHERN CANADA Baffin Bay, etc., West Side Time meridian, local	North	West	h	m	ft	ft	ft	ft	ft
				on Halifax, p.20						
101	Fort Conger, Discovery Harbor	81° 44'	64° 44'	+3 48	+3 25	-1.4	-1.3	4.3	5.9	3.0
103	Cape Lawrence	80° 21'	69° 15'	+3 46	+3 40	-0.2	-1.3	5.5	7.2	3.6
105	Payer Harbour, Cape Sabine	78° 43'	74° 25'	+3 36	+3 30	+1.7	-0.9	7.0	9.4	4.7
107	Cape Adair	71° 33'	71° 30'	+3 06	+3 06	+0.4	-1.2	6.0	7.8	3.9
109	Cape Hewett	70° 16'	67° 47'	+2 56	+2 56	+0.6	-0.5	5.5	7.2	4.4
	Davis Strait, West Side Time meridian, 60° W			on Pictou, p.8						
111	Cape Hooper, Baffin Island	68° 23'	66° 45'	-5 52	-5 41	*0.47	*0.43	1.6	1.9	1.8
113	Kivitoo, Baffin Island	67° 56'	64° 56'	-5 17	-5 10	*0.51	*0.43	1.8	2.4	1.9
				on Saint John, N. B., p.24						
115	Cape Dyer, Baffin Island	66° 34'	61° 40'	-6 19	-6 21	*0.31	*0.45	5.8	7.3	4.7
117	Clearwater Fiord, Cumberland Sound	66° 36'	67° 20'	-5 36	-5 38	-5.5	-0.6	15.9	20.6	11.4
119	Frobisher Bay	63° 29'	68° 02'	-4 13	-4 15	+5.5	+3.3	23.0	29.8	18.8
	Hudson Strait and Bay									
121	Pikyulik Island, Payne River Time meridian, 75° W	60° 00'	69° 55'	-2 15	-1 54	+3.7	+3.2	21.3	26.8	17.9
123	Sorry Harbor, Resolution Island	61° 37'	64° 44'	-5 30	-5 30	-8.3	-0.9	13.4	17.6	9.8
125	Lower Savage Islands	61° 46'	65° 51'	-4 46	-4 55	-1.2	+2.0	17.6	25.4	14.8
127	Ashe Inlet, Big Island	62° 33'	70° 35'	-3 46	-3 43	+4.2	+2.2	22.8	30.9	17.6
129	Schooner Harbour, Baffin Island	64° 24'	77° 52'	-0 49	-0 44	-6.2	+0.4	14.2	18.9	11.5
131	Winter Island, FoXe Basin Time meridian, 90° W	66° 11'	83° 10'	+1 02	+1 10	-12.1	-0.8	9.5	12.4	8.0
133	Coral Harbour, Southampton Island	64° 08'	83° 10'	-0 25	+0 04	-14.4	-1.5	7.9	10.3	6.5
135	Chesterfield Inlet	63° 20'	90° 42'	-8 17	-8 20	-12.4	-0.8	9.2	11.8	7.8
137	Churchill	58° 47'	94° 12'	-4 25	-4 36	-11.5	-1.4	10.7	13.4	7.9
				on Quebec, p.16						
139	Port Nelson, Nelson River entrance Time meridian, 75° W	57° 05'	92° 36'	+3 56	+4 35	-3.1	-0.9	11.5	12.9	6.4
141	Moosonee, James Bay	51° 17'	80° 38'	+9 29	+9 32	*0.48	*1.81	4.5	5.4	5.2
143	Moose Factory, James Bay	51° 16'	80° 35'	+9 33	+10 37	*0.42	*1.56	4.0	5.4	4.5
145	Charlton Island, James Bay	51° 57'	79° 16'	+8 00	+6 38	*0.39	*1.06	4.3	5.3	3.9
				on Saint John, N. B., p.24						
147	Digges Harbour	62° 30'	77° 42'	-2 11	-2 05	*0.39	*0.62	7.1	9.3	6.1
149	Port de Boucherville, Nottingham Island	63° 12'	77° 28'	-2 07	-2 02	-11.6	-1.2	10.4	14.0	8.0
151	Wakeham Bay	61° 43'	71° 57'	-3 52	-3 55	-0.4	+2.2	18.2	27.0	15.3
153	Stupart Bay	61° 35'	71° 32'	-4 10	-4 17	0.0	+2.4	18.4	27.2	15.6
155	Diana Bay	60° 52'	70° 04'	-4 00	-4 03	+2.8	+3.1	20.5	26.8	17.4
157	Hopes Advance Bay, Ungava Bay	59° 21'	69° 38'	-3 59	-4 00	*1.44	*2.20	27.0	34.4	22.3
159	Leaf Bay, Ungava Bay	58° 55'	69° 00'	-4 00	-4 00	*1.49	*2.25	28.0	36.0	23.0
161	Leaf Lake, Ungava Bay	58° 45'	69° 40'	-3 00	-3 00	(*1.54+5.8)		32.0	40.0	28.0
163	Koksoak River entrance	58° 32'	68° 11'	-3 50	-3 53	*1.47	*2.00	28.5	36.4	22.3
165	Port Burwell, Ungava Bay	60° 25'	64° 52'	-4 13	-4 13	-6.5	-0.9	15.2	19.9	10.7
	LABRADOR Time meridian, 52° 30' W									
167	Button Islands	60° 37'	64° 44'	-2 38	-2 38	-9.5	-0.3	11.6	15.4	9.5
169	Williams Harbour	60° 00'	64° 19'	-3 07	-3 27	*0.32	*0.30	6.8	8.2	4.6
				on Halifax, p.20						
171	Eclipse Harbour	59° 48'	64° 09'	+0 25	+0 02	-2.4	-1.0	3.0	3.7	2.6
173	Kangalaksiorvik Fiord	59° 23'	63° 47'	+1 00	+0 42	-2.6	-1.5	3.3	4.1	2.2
175	Nachvak Bay	59° 03'	63° 35'	+0 04	-0 20	-1.5	-1.1	4.0	5.0	3.0
177	Port Manvers	56° 57'	61° 25'	-0 55	-0 55	-2.3	-1.2	3.3	4.2	2.6
179	Hebron, Hebron Fjord	58° 12'	62° 38'	-0 49	-1 05	-1.4	-0.9	3.9	4.7	3.2
181	Nain	56° 33'	61° 41'	-0 32	-0 54	+0.3	-0.5	5.2	6.5	4.2
183	Hopedale Harbour	55° 27'	60° 13'	-0 46	-1 09	-0.4	-0.3	4.3	5.6	4.0
185	Webeck Harbour Hamilton Inlet and Lake Melville	54° 54'	58° 02'	-1 07	-1 38	-1.3	-0.8	3.9	5.0	3.3
187	Indian Harbour	54° 27'	57° 12'	-0 37	-1 33	-1.0	-0.9	4.3	5.7	3.4
189	Ticoralak Island	54° 17'	58° 12'	-0 35	-0 55	-0.9	-0.5	4.0	4.9	3.7
191	Rigolet	54° 11'	58° 25'	-0 02	-0 17	-1.9	-1.0	3.5	4.5	2.8
193	Goose Bay	53° 21'	60° 24'	+4 22	+4 24	(*0.27+0.4)		1.2	1.7	1.6
195	Cartwright Harbour	53° 42'	57° 02'	-0 03	-0 34	-1.3	-0.6	3.7	4.9	3.4
197	Curlew Harbour	53° 45'	56° 33'	-0 07	-0 38	-1.6	-0.9	3.7	4.9	3.1
199	Comfort Bight	53° 09'	55° 46'	-0 32	-1 03	-1.9	-1.0	3.5	4.6	2.9

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
		North	West	h m	h m	ft	ft	ft	ft	
LABRADOR										
Time meridian, 52° 30' W										
201	Square Island Harbour	52° 44'	55° 49'	-0 34	-1 05	-2.0	-1.1	3.5	4.7	2.8
203	Port Marnham	52° 23'	55° 44'	-0 43	-1 14	-2.7	-1.0	2.7	3.6	2.5
205	Battle Harbour	52° 16'	55° 36'	-1 03	-1 30	-2.1	-0.3	2.6	3.8	3.1
on Halifax, p.20										
Strait of Bell Isle										
207	Chateau Bay	52° 00'	55° 50'	-3 08	-3 19	*0.69	*0.81	2.4	3.1	2.5
209	Red Bay	51° 43'	56° 25'	-2 00	-1 55	*0.56	*0.56	2.1	2.6	2.0
211	Forteau Bay	51° 27'	56° 53'	-0 26	-0 17	*0.78	*0.81	2.9	3.7	2.8
NEWFOUNDLAND										
East Coast										
on Halifax, p.20										
213	Pistolet Bay	51° 30'	55° 44'	-0 14	-0 28	*0.46	*0.29	2.4	3.1	1.8
215	Arnege Bay	51° 10'	56° 00'	-0 34	-0 34	-2.6	-1.5	3.3	4.3	2.3
217	Wild Cove	50° 42'	56° 10'	-0 49	-1 01	-2.0	-1.1	3.5	4.7	2.8
219	Sops Island, White Bay	49° 50'	56° 46'	-0 49	-1 24	*0.46	*0.29	2.4	3.4	1.8
221	Exploits Lower Harbour	49° 32'	55° 04'	-0 34	-1 09	-3.1	-1.3	2.6	3.5	2.1
223	Fogo Harbour	49° 43'	54° 16'	-0 34	-0 42	-2.6	-1.3	3.1	4.2	2.4
225	Valleyfield	49° 10'	53° 37'	-0 46	-1 13	*0.45	*0.33	2.2	2.9	1.8
227	Port Union	48° 30'	53° 05'	-0 53	-1 15	*0.49	*0.48	2.2	3.0	2.1
229	Random Head Harbour, Trinity Bay	48° 06'	53° 34'	-0 53	-1 05	*0.48	*0.33	2.4	3.2	1.9
231	Harbour Grace, Conception Bay	47° 41'	53° 12'	-0 28	-0 46	*0.51	*0.33	2.6	3.5	2.0
233	St. John's	47° 34'	52° 42'	-0 34	-0 46	*0.52	*0.38	2.6	3.5	2.1
South Coast										
on Argentia, p.4										
235	Trepassey Harbour	46° 43'	53° 23'	-0 19	-0 11	-1.2	-0.5	4.2	5.6	3.5
237	St. Mary Harbour, St. Mary Bay	46° 55'	53° 35'	-0 14	-0 06	-1.2	-0.5	4.2	5.6	3.5
Placentia Bay										
239	ARGENTIA	47° 18'	53° 59'	<i>Daily predictions</i>				4.9	6.3	4.4
241	Woody Island	47° 47'	54° 10'	+0 09	+0 09	-0.5	-0.3	4.7	6.0	4.0
243	Mortier Bay	47° 10'	55° 09'	+0 15	+0 26	-1.0	-0.8	4.7	6.0	3.5
245	Great St. Lawrence Harbour	46° 55'	55° 22'	+0 28	+0 55	-0.7	+0.3	3.9	5.0	4.2
Time meridian, 60° W										
247	St. Pierre Harbor, St. Pierre Island	46° 47'	56° 10'	-0 09	+0 13	-0.8	+0.2	3.9	5.0	4.1
Fortune Bay										
249	Grande le Pierre Harbour	47° 40'	54° 47'	+1 09	+1 09	-1.0	+0.2	3.7	4.8	4.0
251	Belleoram	47° 32'	55° 25'	+0 57	+0 57	(*0.67+0.8)		3.3	4.3	3.8
253	Ship Cove, Bay d'Espoir	47° 52'	55° 50'	+0 45	+0 53	-0.4	0.0	4.5	5.5	4.2
255	Great Jervis Harbour, Bay d'Espoir	47° 39'	56° 11'	+0 38	+1 05	-1.1	+0.1	3.7	4.8	3.9
257	Hare Bay	47° 37'	56° 32'	+0 41	+1 08	(*0.67+0.6)		3.3	4.3	3.6
259	Grey River	47° 34'	57° 07'	+0 45	+1 12	(*0.63+0.7)		3.1	4.0	3.5
261	Connoire Bay	47° 40'	57° 54'	+0 50	+0 50	(*0.59+0.7)		2.9	3.8	3.3
263	La Poile Bay	47° 40'	58° 24'	+1 15	+1 15	(*0.63+0.6)		3.1	4.0	3.4
on Harrington Harbour, p.12										
265	Port Aux Basques	47° 35'	59° 09'	-1 24	-1 28	*0.80	*0.75	3.1	4.0	2.8
267	Codroy Road	47° 53'	59° 24'	-1 22	-1 27	*0.74	*0.75	2.8	3.7	2.6
West Coast										
269	St. Georges Harbour	48° 27'	58° 30'	-0 28	-0 38	*0.78	*0.88	2.8	3.5	2.8
271	Port-au-Port	48° 33'	58° 45'	+0 05	+0 10	-1.3	-1.0	3.5	4.5	2.4
273	Frenchman's Cove, Bay of Islands	49° 04'	58° 10'	+0 10	+0 10	-0.5	0.0	3.3	4.2	3.3
275	Norris Cove, Bonne Bay	49° 31'	57° 52'	+0 10	+0 10	-0.7	-0.4	3.5	4.4	3.0
277	Portland Cove	50° 11'	57° 36'	+0 19	+0 19	-0.6	-0.4	3.6	4.6	3.0
279	Port Saunders	50° 39'	57° 18'	+0 07	+0 03	-0.3	-0.3	3.8	4.9	3.2
281	Castors Harbour, St. John Bay	50° 55'	56° 59'	+0 10	+0 10	*0.78	*0.75	3.0	4.1	2.7
283	St. Barbe Bay	51° 12'	56° 46'	+0 00	+0 00	*0.78	*0.56	3.3	4.4	2.6
QUEBEC										
Gulf of St. Lawrence										
Time meridian, 60° W										
285	Bradore Bay	51° 28'	57° 15'	-0 35	-0 30	-0.6	-0.1	3.3	4.4	3.1
287	Mistanoque Harbour	51° 16'	58° 12'	-0 15	-0 15	-0.4	-0.1	3.5	4.6	3.3
289	HARRINGTON HARBOUR	50° 30'	59° 28'	<i>Daily predictions</i>				3.8	4.9	3.5
291	Wapitagan Harbour	50° 12'	60° 01'	+0 15	+0 15	-0.3	+0.1	3.4	4.4	3.4
293	Kegaska	50° 12'	61° 14'	+0 40	+0 40	-0.9	-0.2	3.1	4.0	3.0
295	Natashquan	50° 12'	61° 50'	+1 00	+1 10	-0.8	-0.1	3.1	4.0	3.1
297	Betchewun Harbour	50° 14'	63° 11'	+2 09	+2 13	-0.7	-0.4	3.5	4.6	3.0
299	Havre St. Pierre	50° 14'	63° 36'	+2 23	+2 32	0.0	-0.1	3.9	4.8	3.5
301	Mingan	50° 18'	64° 03'	+2 35	+2 40	+0.9	0.0	4.7	5.8	3.9

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level	
		Latitude	Longitude	Time		Height		Mean	Spring		
				High Water	Low Water	High Water	Low Water				
		North	West	h m	h m	ft	ft	ft	ft		
QUEBEC Gulf of St. Lawrence-cont. Time meridian, 60° W				on Harrington Harbour, p.12							
<i>Anticosti Island</i>											
303	Heath Point	49° 05'	61° 42'	+0 51	+0 52	(*0.61+0.3)		2.3	3.0	2.4	
305	Southwest Point	49° 24'	63° 36'	+3 21	+3 26	-0.3	0.0	3.5	4.4	3.4	
307	Ellis Bay	49° 48'	64° 22'	+3 37	+3 38	+0.3	-0.5	4.6	5.7	3.4	
309	Moisie Bay	50° 12'	66° 05'	+3 43	+3 49	+2.3	+0.5	5.6	7.2	4.9	
311	Sept Iles	50° 13'	66° 24'	+3 54	+3 58	+2.7	-0.1	6.6	8.6	4.8	
313	Cawee Islands	49° 50'	67° 00'	+4 01	+4 07	+3.0	+0.6	6.2	8.0	5.3	
St. Lawrence River Time meridian, 75° W											
315	Ste. Anne des Monts	49° 08'	66° 29'	+3 17	+3 19	+3.4	+0.6	6.6	8.6	5.5	
317	Cap Chat	49° 06'	66° 45'	+3 17	+3 21	+4.2	+1.0	7.0	9.0	6.1	
319	Pointe des Monts	49° 20'	67° 22'	+3 10	+3 16	+4.3	+0.8	7.3	9.6	6.1	
321	Matane	48° 51'	67° 32'	+3 18	+3 22	+4.7	+0.9	7.6	9.9	6.3	
323	Metis-sur-Mer	48° 41'	68° 02'	+3 24	+3 28	+5.4	+1.1	8.1	10.6	6.8	
on Quebec, p.16											
325	Betsiamites River	48° 53'	68° 39'	-4 20	-5 08	-3.8	+1.4	8.5	11.2	7.3	
327	Father Point	48° 31'	68° 28'	-4 22	-5 29	-3.4	+1.4	8.9	11.7	7.5	
329	Old Bic Harbour	48° 22'	68° 44'	-4 12	-5 14	-3.3	+1.4	9.0	11.8	7.5	
331	Tadoussac, Saguenay River	48° 08'	69° 43'	-3 47	-4 54	-1.8	+0.8	11.1	14.0	8.0	
333	Chicoutimi, Saguenay River	48° 26'	71° 03'	-3 28	-3 40	-1.4	+1.3	11.0	14.4	8.4	
335	Brandypt Islands	47° 52'	69° 41'	-3 36	-4 40	-0.5	+2.2	11.0	14.5	9.3	
337	Murray Bay	47° 39'	70° 08'	-3 20	-4 22	+0.4	+2.3	11.8	15.3	9.8	
339	Pointe aux Orignaux	47° 29'	70° 01'	-2 47	-3 41	-0.3	+2.2	11.2	14.7	9.4	
341	Ile aux Coudres	47° 26'	70° 19'	-2 10	-3 21	+1.2	+2.0	12.9	15.8	10.1	
343	L' Islet	47° 08'	70° 22'	-1 17	-2 05	0.0	+0.9	12.8	15.3	9.0	
345	Beaujeu Channel	47° 05'	70° 29'	-1 10	-1 43	+0.6	+0.5	13.8	15.7	9.0	
347	Grosse Ile	47° 02'	70° 40'	-0 57	-1 19	+1.3	0.0	15.0	17.1	9.1	
349	Berthier	46° 56'	70° 44'	-0 47	-1 08	+1.3	0.0	15.0	16.9	9.1	
351	St. Laurent d' Orleans	46° 52'	71° 00'	-0 20	-0 30	+0.3	+0.2	13.8	15.6	8.7	
353	QUEBEC	46° 49'	71° 11'	<i>Daily predictions</i>				13.7	15.5	8.5	
355	St. Nicolas	46° 43'	71° 24'	+0 35	+0 32	-0.7	---	12.6	14.3	--	
357	St. Augustin	46° 43'	71° 28'	+0 54	+0 53	-1.6	---	11.8	13.3	--	
359	Ste. Croix <1>	46° 37'	71° 45'	+1 31	+2 00	---	---	11.8	13.3	--	
361	Pointe Platon <1>	46° 40'	71° 51'	+1 43	+2 11	---	---	11.4	12.9	--	
363	Grondines <1>	46° 36'	72° 04'	+2 14	+3 18	---	---	6.7	8.1	--	
365	Cap a la Roche <1>	46° 33'	72° 10'	+2 37	+3 48	---	---	5.4	6.7	--	
367	Batiscan <1>	46° 31'	72° 15'	+3 32	+4 49	---	---	2.3	3.3	--	
369	Champlain <1>	46° 26'	72° 21'	+4 08	+5 30	---	---	1.8	2.8	--	
371	Trois Rivieres <1>	46° 20'	72° 33'	+4 45	+6 15	---	---	0.7	1.0	--	
QUEBEC and NEW BRUNSWICK Gulf of St. Lawrence Time meridian, 60° W				on Pictou, p.8							
373	Gaspé Bay	48° 50'	64° 29'	+4 43	+4 58	-1.1	-0.5	2.6	3.3	3.1	
375	Point St. Peter	48° 38'	64° 10'	+4 59	+5 11	*0.67	*0.52	2.5	3.2	2.5	
<i>Chaleur Bay</i>											
377	Port Daniel	48° 10'	64° 57'	+5 27	+5 42	-0.7	-0.6	3.1	3.8	3.3	
379	Paspebiac	48° 01'	65° 14'	+5 22	+5 34	-0.4	-1.0	3.8	4.6	3.2	
381	Carleton Point	48° 05'	66° 07'	+5 31	+5 36	+0.8	-0.7	4.7	6.2	4.0	
383	Campbellton	48° 01'	66° 40'	+6 04	+6 40	+3.5	+0.9	5.8	7.2	6.1	
385	Dalhousie	48° 04'	66° 22'	+5 42	+5 52	+2.2	-0.2	5.6	7.1	4.9	
387	Bathurst	47° 37'	65° 39'	+6 04	+6 50	-0.3	-1.1	4.0	4.8	3.2	
389	Caraquet Harbour	47° 48'	64° 56'	+5 49	+5 50	-1.0	-1.1	3.3	4.0	2.9	
391	Miscou Harbour	47° 54'	64° 35'	+5 45	+5 57	-0.5	-1.1	3.8	5.0	3.1	
393	Old Tracadie Gully entrance	47° 31'	64° 52'	+6 25	+6 36	-1.6	-1.2	2.8	3.5	2.5	
395	Tracadie	47° 31'	64° 55'	+6 55	+7 06	*0.55	*0.35	2.2	2.8	1.9	
MeanDiurnal											
397	Portage Island, Miramichi Bay #	47° 09'	65° 03'	-5 11	-4 59	-1.7	-0.8	--	3.3	2.2	
399	Newcastle, Miramichi River #	47° 00'	65° 34'	-3 53	-3 13	-0.7	-0.5	--	4.0	--	
401	Richibucto River entrance #	46° 43'	64° 48'	-4 45	---	-2.7	-0.8	--	2.3	1.8	
403	Shediac Bay #	46° 15'	64° 32'	---	+0 18	-1.9	-0.5	--	2.8	2.8	
Mean Spring											
405	Cape Tormentine	46° 08'	63° 47'	+0 41	+1 03	+1.5	-0.1	4.8	5.7	4.6	
407	Tidnish Head, Baie Verte	46° 01'	64° 01'	+0 33	+0 54	+1.7	-0.2	5.1	6.3	4.7	
PRINCE EDWARD ISLAND											
MeanDiurnal											
409	Tignish #	46° 58'	64° 00'	-4 59	-5 27	-2.5	-0.8	--	2.5	1.7	
411	Alberton #	46° 49'	64° 03'	-4 27	-4 10	-2.8	-0.7	--	2.1	1.7	
413	Malpeque Bay #	46° 35'	63° 40'	-3 29	-3 13	-2.5	-0.8	--	2.5	1.8	
415	North Rustico #	46° 28'	63° 17'	-4 10	-4 04	-2.7	-1.0	--	2.5	1.6	
417	St. Peters Bay #	46° 26'	62° 44'	-3 52	-3 37	-3.3	-1.0	--	1.9	1.5	
419	Naufrage #	46° 28'	62° 25'	-3 09	-3 27	-2.6	-0.8	--	2.4	2.0	

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
		North	West	h m	h m	ft	ft	ft	ft	ft
PRINCE EDWARD ISLAND Time meridian, 60° W				on Pictou, p.8						
421	Souris Head	46° 20'	62° 17'	-1 23	-1 25	-0.6	-0.2	2.8	3.5	3.5
423	Georgetown Harbour	46° 11'	62° 32'	-1 03	-1 00	-0.5	-0.1	2.8	3.5	3.6
425	Cape Bear	46° 00'	62° 27'	-0 42	-0 40	-0.6	-0.5	3.1	4.0	3.4
427	Charlottetown	46° 13'	63° 08'	+0 33	+0 42	+2.5	+0.5	5.2	6.4	5.4
429	Summerside Harbour	46° 24'	63° 47'	+0 57	+1 19	+0.9	+0.3	3.8	4.5	4.5
NOVA SCOTIA Gulf of St. Lawrence										
431	St. Paul Island	47° 12'	60° 09'	-1 25	-1 22	*0.64	*0.57	2.2	2.8	2.4
433	Amherst Harbour, Magdalen Islands	47° 14'	61° 50'	-1 05	-1 07	*0.53	*0.57	1.6	2.0	2.1
435	Pugwash	45° 51'	63° 40'	+1 00	+1 03	+1.8	0.0	5.0	6.0	4.8
437	PICTOU	45° 41'	62° 42'	Daily predictions				3.2	3.9	3.9
439	Merigomish Harbour	45° 39'	62° 27'	-0 13	-0 01	-0.3	0.0	2.9	3.4	3.8
441	Cape George	45° 53'	61° 53'	-0 54	-0 51	-1.6	-0.8	2.4	3.2	2.7
443	Antigonish Harbour	45° 40'	61° 53'	+0 09	+0 17	-1.7	-0.5	2.0	2.5	2.8
445	Cape Jack	45° 42'	61° 33'	-1 11	-1 18	-1.8	-0.7	2.1	2.6	2.7
447	Auld Cove	45° 39'	61° 26'	-0 27	-0 33	(*0.62+1.3)		2.0	2.6	3.7
Cape Breton Island										
449	Port Hood	46° 01'	61° 32'	-0 46	-0 45	-1.6	-0.9	2.5	3.2	2.7
451	Mabou River entrance	46° 06'	61° 28'	-0 53	-1 04	*0.66	*0.61	2.2	2.9	2.5
453	Cheticamp	46° 37'	61° 02'	-1 23	-1 20	*0.56	*0.74	1.4	1.8	2.4
Outer Coast										
Cape Breton Island-cont.										
455	Neil Harbour	46° 48'	60° 20'	-1 44	-1 45	*0.69	*0.65	2.4	3.1	2.7
457	Ingonish Island	46° 40'	60° 23'	-1 40	-1 33	-1.5	-0.9	2.6	3.2	2.7
459	St. Anns Harbour	46° 15'	60° 34'	-1 37	-1 40	-1.4	-1.0	2.8	3.5	2.7
461	North Sydney	46° 13'	60° 15'	-1 54	-1 49	*0.73	*0.61	2.6	3.2	2.7
463	Glace Bay	46° 12'	59° 55'	-1 59	-1 54	-1.6	-0.9	2.5	3.2	2.7
				on Halifax, p.20						
465	Louisburg Harbour	45° 54'	59° 59'	-0 08	-0 14	-1.6	-0.7	3.5	4.2	3.2
467	Gabarus Cove	45° 51'	60° 10'	+0 08	+0 10	-1.4	-0.7	3.7	4.4	3.3
469	St. Peter Bay	45° 38'	60° 52'	-0 12	-0 07	-0.6	-0.4	4.2	5.1	3.8
471	Arichat	45° 31'	61° 02'	-0 25	-0 14	-0.9	-0.5	4.0	4.8	3.6
473	Port Hastings, Strait of Canso	45° 39'	61° 24'	-0 16	-0 12	0.0	+0.2	4.2	5.1	4.4
475	Guysborough	45° 23'	61° 29'	+0 06	+0 18	-1.1	-0.5	3.8	4.6	3.5
477	Canso Harbour	45° 21'	61° 00'	-0 05	-0 04	-1.1	-0.6	3.9	4.7	3.5
479	Whitehaven Harbour	45° 14'	61° 12'	-0 10	-0 02	-1.1	-0.4	3.7	4.7	3.6
481	Isaacs Harbour	45° 11'	61° 40'	-0 03	+0 04	-0.6	-0.1	3.9	4.6	4.0
483	Sonora, St. Mary River	45° 03'	61° 55'	-0 02	+0 09	-0.7	-0.6	4.3	5.2	3.7
485	Liscomb Harbour	45° 00'	62° 02'	-0 11	-0 05	-0.6	-0.4	4.2	5.0	3.8
487	Sheet Harbour	44° 54'	62° 30'	-0 08	-0 04	-1.1	-0.9	4.2	5.0	3.3
489	Ship Harbour	44° 47'	62° 49'	-0 07	-0 04	-0.6	-0.4	4.2	5.1	3.8
491	Jeddore Harbour	44° 45'	63° 01'	-0 06	-0 03	-0.5	-0.4	4.3	5.2	3.9
493	HALIFAX	44° 40'	63° 34'	Daily predictions				4.4	5.3	4.3
495	Sable Island, north side	43° 57'	60° 06'	-0 06	-0 12	-2.7	-0.9	2.6	3.2	2.5
497	Sable Island, south side	43° 56'	59° 54'	-0 02	-0 06	-2.1	-1.6	3.9	4.8	2.5
499	St. Margarets Bay	44° 31'	63° 56'	+0 08	+0 07	-0.5	-0.3	4.2	4.9	3.9
501	Chester, Mahone Bay	44° 34'	64° 18'	+0 01	-0 04	-0.2	-0.2	4.4	5.3	4.1
503	Mahone Harbour, Mahone Bay	44° 27'	64° 22'	+0 03	-0 01	-0.1	-0.2	4.5	5.5	4.2
505	Lunenburg	44° 22'	64° 19'	+0 07	+0 07	-0.1	+0.1	4.2	4.9	4.3
507	Riverport, La Have River	44° 17'	64° 20'	+0 12	+0 05	-0.3	-0.4	4.5	5.3	4.0
509	Bridgewater, La Have River	44° 23'	64° 31'	+0 09	+0 06	-0.2	-0.3	4.5	5.5	4.1
511	Liverpool Bay	44° 02'	64° 41'	+0 14	+0 04	-0.5	-0.4	4.3	5.1	3.9
513	Lockeport	43° 44'	65° 05'	+0 27	+0 02	-0.2	-0.4	4.6	5.4	4.0
515	Shelburne	43° 45'	65° 18'	+0 30	+0 35	+0.1	-0.3	4.8	5.8	4.2
517	Barrington Passage	43° 32'	65° 36'	+0 51	+0 30	+1.6	+0.6	5.4	6.2	5.4
519	Swim Point	43° 26'	65° 38'	+1 41	+1 03	+2.9	+0.1	7.2	8.4	5.8
NOVA SCOTIA and NEW BRUNSWICK Bay of Fundy				on Saint John, N. B., p.24						
521	Lower East Pubnico	43° 38'	65° 46'	-1 52	-2 07	*0.43	*0.48	8.7	10.0	6.3
523	Yarmouth Harbour	43° 48'	66° 08'	-1 07	-1 15	*0.53	*0.42	11.5	13.4	7.5
525	Westport, St. Mary Bay	44° 16'	66° 21'	-0 35	-0 30	*0.72	*0.72	15.0	16.7	10.4
527	Tiverton, St. Mary Bay	44° 24'	66° 13'	-0 38	-0 30	-5.6	-0.7	15.9	18.3	11.3
529	Weymouth, St. Mary Bay	44° 27'	66° 01'	-0 26	-0 22	-6.5	-0.7	15.0	17.0	10.8
531	Digby, Annapolis Basin	44° 38'	65° 45'	-0 09	-0 07	+0.7	+0.3	21.2	24.6	14.9
533	Annapolis Royal, Annapolis River	44° 45'	65° 30'	+0 06	+0 10	+2.2	+0.4	22.6	25.7	15.7
535	Port George	45° 01'	65° 10'	-0 06	-0 06	+6.7	+0.8	26.7	30.5	18.2
537	Ile Haute	45° 15'	65° 00'	-0 02	-0 02	+7.4	+0.7	27.5	31.5	18.5
539	Spencer Island	45° 20'	64° 42'	+0 17	+0 21	*1.47	*1.50	30.5	35.0	21.2
Minas Basin										
541	Parrsboro (Partridge Island) <2>	45° 22'	64° 20'	+0 51	+0 49	+14.7	---	34.4	39.0	22.3
543	Horton Bluff, Avon River	45° 06'	64° 13'	+0 58	+1 02	*1.76	*1.38	38.1	43.6	24.6
545	Windsor <2>	45° 00'	64° 08'	+1 03	---	+19.5	---	---	---	---
547	Burntcoat Head	45° 18'	63° 49'	+1 06	+1 12	*1.90	*2.18	38.4	43.5	27.9
549	Truro <2>	45° 22'	63° 20'	+1 43	---	+26.1	---	---	---	---
551	Spicer Cove, Chignecto Bay	45° 26'	64° 54'	+0 12	+0 16	+7.0	+0.8	27.0	30.0	18.3
553	Joggins <2>	45° 41'	64° 28'	+0 14	+0 26	+14.2	+1.8	33.2	37.0	22.4
555	Amherst Point, Cumberland Basin	45° 50'	64° 17'	+0 33	+0 45	*1.69	*1.55	35.6	40.5	24.0

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
		North	West	h	m	ft	ft	ft	ft	ft
		MAINE								
		Outer Coast								
		Time meridian, 75° W								
		on Portland, p.36								
677	Tenants Harbor	43° 57.9'	69° 13.0'	-0 11	-0 11	*1.02	*1.02	9.3	10.6	5.0
679	Monhegan Island	43° 45.9'	69° 19.3'	-0 13	-0 09	*0.97	*0.97	8.8	10.1	4.7
681	Burnt Island, Georges Islands	43° 52.3'	69° 17.7'	-0 13	-0 12	*0.98	*0.98	8.9	10.2	4.8
		<i>St. George River</i>								
683	Port Clyde	43° 55.5'	69° 15.6'	-0 11	-0 07	*0.98	*0.98	8.9	10.2	4.8
685	Otis Cove	43° 59.2'	69° 14.2'	-0 15	-0 14	*1.00	*1.00	9.1	10.5	4.9
687	Thomaston	44° 04.3'	69° 10.9'	-0 04	-0 03	*1.03	*1.03	9.4	10.8	5.0
689	New Harbor, Muscongus Bay	43° 52.5'	69° 29.4'	-0 10	-0 08	*0.97	*0.97	8.8	10.1	4.7
691	Muscongus Harbor, Muscongus Sound	43° 58.0'	69° 26.5'	-0 09	-0 03	*0.99	*0.99	9.0	10.4	4.8
693	Friendship Harbor	43° 58.2'	69° 20.5'	-0 18	-0 11	*0.99	*0.99	9.0	10.4	4.8
		<i>Medomak River</i>								
695	Jones Neck	44° 00.9'	69° 22.8'	-0 10	-0 05	*1.00	*1.00	9.1	10.5	4.9
697	Waldoboro	44° 05.6'	69° 22.6'	-0 16	-0 04	*1.04	*1.04	9.5	10.9	5.1
699	Pemaquid Harbor, Johns Bay	43° 52.6'	69° 31.5'	-0 05	-0 04	*0.97	*0.97	8.8	10.1	4.7
		<i>Damariscotta River</i>								
701	East Boothbay	43° 51.9'	69° 35.0'	-0 02	+0 01	*0.98	*0.98	8.9	10.2	4.8
703	Walpole	43° 56.0'	69° 34.8'	+0 06	+0 14	*1.03	*1.06	9.35	10.66	5.05
705	Newcastle	44° 02.0'	69° 32.2'	+0 16	+0 25	*1.02	*1.02	9.3	10.7	5.0
707	Damariscove Harbor, Damariscove Island	43° 45.5'	69° 36.9'	-0 09	-0 10	*0.97	*0.97	8.8	10.1	4.7
709	Boothbay Harbor	43° 51.1'	69° 37.7'	-0 06	-0 08	*0.97	*0.97	8.8	10.1	4.7
711	Southport, Townsend Gut	43° 50.8'	69° 39.7'	+0 01	+0 01	*0.98	*0.98	8.9	10.2	4.8
		<i>Sheepscot River</i>								
713	Isle of Springs	43° 51.6'	69° 41.2'	-0 02	-0 04	*0.98	*0.98	8.9	10.3	4.8
715	Cross River entrance	43° 55.5'	69° 40.2'	+0 07	+0 04	*1.00	*1.00	9.1	10.5	4.9
717	Wiscasset	44° 00.0'	69° 40.0'	+0 16	+0 04	*1.03	*1.03	9.4	10.8	5.0
719	Sheepscot (below rapids)	44° 03.0'	69° 37.1'	+0 20	+0 20	*1.05	*1.05	9.6	11.0	5.2
721	Back River	43° 57.5'	69° 41.1'	+0 34	+0 31	*1.00	*1.00	9.1	10.5	4.9
723	Robinhood, Sasanoa River	43° 51.2'	69° 44.0'	+0 14	+0 14	*0.97	*0.97	8.8	10.1	4.7
725	Mill Point, Sasanoa River	43° 53.2'	69° 45.8'	+0 35	+0 43	*0.97	*0.97	8.8	10.1	4.7
		<i>Kennebec River</i>								
727	Fort Popham, Hunniwell Point	43° 45.3'	69° 47.3'	+0 09	+0 04	*0.92	*0.92	8.4	9.7	4.5
729	Phippsburg	43° 49.1'	69° 48.6'	+0 26	+0 28	*0.88	*0.88	8.0	9.2	4.3
731	Bath	43° 55.1'	69° 48.8'	+1 01	+1 17	*0.70	*0.70	6.4	7.4	3.4
733	Sturgeon Island, Merrymeeting Bay	43° 58.9'	69° 50.1'	+2 00	+2 04	*0.58	*0.58	5.3	6.1	2.8
735	Androscoggin River entrance	43° 57.0'	69° 53.3'	+2 24	+3 26	*0.52	*0.52	4.7	5.4	2.5
737	Brunswick, Androscoggin River	43° 55.3'	69° 57.8'	+2 35	+4 36	*0.42	*0.42	3.8	4.4	2.0
739	Bowdoinham, Cathance River	44° 00.5'	69° 53.7'	+2 34	+2 42	*0.63	*0.63	5.7	6.6	3.1
		Casco Bay								
741	Cundy Harbor, New Meadows River	43° 47.3'	69° 53.6'	-0 01	-0 02	*0.98	*0.98	8.9	10.2	4.8
743	Howard Point, New Meadows River	43° 53.4'	69° 53.0'	-0 05	+0 01	*0.99	*0.99	9.0	10.3	4.8
745	South Harpswell, Potts Harbor	43° 44.3'	70° 01.4'	+0 02	+0 01	*0.98	*0.98	8.9	10.2	4.8
747	Wilson Cove, Middle Bay	43° 49.5'	69° 58.6'	+0 02	+0 02	*1.00	*1.00	9.1	10.5	4.9
749	South Freeport	43° 49.2'	70° 06.2'	+0 12	+0 10	*0.99	*0.99	9.0	10.3	4.8
751	Prince Point	43° 45.7'	70° 10.4'	+0 00	+0 01	*1.00	*0.99	9.19	10.57	4.90
753	Doyle Point	43° 45.1'	70° 08.4'	-0 02	-0 03	*1.00	*0.88	9.2	10.5	4.9
755	Falmouth Foreside	43° 43.9'	70° 12.3'	+0 01	+0 01	*1.00	*0.97	9.16	10.53	4.91
757	Great Chebeague Island	43° 43.3'	70° 08.5'	+0 02	+0 02	*1.00	*1.03	9.11	10.48	4.91
759	Cliff Island, Luckse Sound	43° 41.7'	70° 06.6'	-0 02	-0 02	*1.00	*1.00	9.1	10.4	4.9
761	Vaill Island	43° 40.6'	70° 09.3'	+0 05	+0 01	*0.98	*1.03	9.0	10.3	4.8
763	Long Island	43° 41.4'	70° 10.2'	-0 01	-0 01	*1.00	*1.00	9.09	10.45	4.89
765	Cow Island	43° 41.4'	70° 11.4'	-0 01	+0 00	*1.00	*1.00	9.11	10.48	4.89
767	Presumpscot River Bridge	43° 41.4'	70° 14.8'	+0 01	+0 04	*1.01	*1.06	9.2	10.6	5.0
769	Back Cove	43° 41'	70° 15'	+0 02	+0 06	*0.97	*0.97	9.1	10.5	4.9
771	Great Diamond Island	43° 40.2'	70° 12.0'	+0 00	+0 00	*1.00	*1.03	9.08	10.44	4.89
773	Peak Island	43° 39.3'	70° 12.0'	-0 04	-0 08	*0.99	*0.99	9.0	10.4	4.8
775	Cushing Island	43° 38.7'	70° 11.9'	+0 01	+0 01	*0.99	*1.03	9.02	10.37	4.87
777	PORTLAND	43° 39.6'	70° 14.8'	<i>Daily predictions</i>				9.12	10.53	4.91
779	Fore River	43° 38.5'	70° 17.1'	+0 02	+0 02	*1.00	*1.03	9.16	10.53	4.93
781	Portland Head Light	43° 37.4'	70° 12.4'	-0 02	-0 01	*0.97	*1.00	8.89	10.13	4.78
		Outer Coast								
783	Pine Point, Scarborough River	43° 32.7'	70° 20.0'	+0 06	+0 16	*0.96	*0.97	8.77	9.72	4.71
785	Old Orchard Beach	43° 31'	70° 22'	+0 00	-0 06	*0.97	*0.97	8.8	10.1	4.7
787	Camp Ellis, Saco River Entrance	43° 27.7'	70° 22.9'	+0 03	+0 10	*0.97	*1.00	8.92	10.17	4.79
789	Biddeford, Saco River	43° 29.5'	70° 26.8'	+0 12	+0 26	*0.99	*0.97	9.06	10.33	4.86
791	Cape Porpoise	43° 22.0'	70° 25.9'	+0 12	+0 14	*0.95	*0.95	8.7	9.9	4.7
793	Kennebunkport	43° 21.5'	70° 28.6'	+0 07	+0 05	*0.97	*1.00	8.84	10.08	4.76
795	Wells, Webhannet River	43° 19.2'	70° 33.8'	+0 06	+0 02	*0.96	*1.00	8.77	10.09	4.72
797	Cape Neddick	43° 10.0'	70° 35.6'	+0 02	+0 08	*0.95	*1.00	8.69	9.99	4.68
799	York Harbor	43° 07.9'	70° 38.5'	+0 03	+0 13	*0.95	*0.95	8.6	9.9	4.6
801	Fort Point, York Harbor	43° 07.8'	70° 38.3'	-0 04	+0 10	*0.95	*0.94	8.69	9.99	4.66
803	Seapoint, Cutts Island	43° 05.1'	70° 39.7'	+0 01	-0 04	*0.96	*0.96	8.8	10.1	4.7

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level		
		Latitude	Longitude	Time		Height		Mean	Spring			
				High Water	Low Water	High Water	Low Water					
	MAINE and NEW HAMPSHIRE Time meridian, 75° W	North	West	h	m	ft	ft	ft	ft	ft		
				on Portland, p.36								
805	Portsmouth Harbor Jaffrey Point	43° 03.4'	70° 43.9'	-0	03	*0.95	*0.95	8.7	10.0	4.7		
807	Gerrish Island	43° 04.0'	70° 41.7'	-0	02	*0.95	*0.95	8.7	10.0	4.7		
809	Fort Point	43° 04.3'	70° 42.7'	+0	09	*0.95	*1.00	8.63	9.92	4.65		
811	Kittery Point	43° 04.9'	70° 42.2'	-0	07	*0.96	*0.96	8.7	10.0	4.7		
813	Seavey Island	43° 05'	70° 45'	+0	20	*0.89	*0.89	8.1	9.4	4.4		
815	Portsmouth	43° 04.7'	70° 45.1'	+0	22	*0.86	*0.86	7.8	9.0	4.2		
	Piscataqua River											
817	Atlantic Heights	43° 05.4'	70° 46.0'	+0	37	*0.82	*0.82	7.5	8.6	4.0		
819	Dover Point	43° 07'	70° 50'	+1	33	*0.70	*0.70	6.4	7.4	3.4		
821	Dover, Cocheco River	43° 11.9'	70° 52.1'	+1	45	*0.77	*0.76	7.04	8.03	3.78		
823	Salmon Falls River	43° 11.4'	70° 49.5'	+1	35	*0.75	*0.75	6.8	7.8	3.6		
825	Squamscott River RR. Bridge	43° 03.2'	70° 54.8'	+2	19	*0.75	*0.75	6.8	7.8	3.6		
827	Gosport Harbor, Isles of Shoals	42° 58.7'	70° 36.9'	+0	02	*0.93	*0.93	8.5	9.8	4.5		
829	Hampton Harbor	42° 54'	70° 49'	+0	14	*0.91	*0.91	8.3	9.5	4.5		
	MASSACHUSETTS											
	Merrimack River											
831	Plum Island, Merrimack River Entrance	42° 49.0'	70° 49.2'	+0	06	*0.88	*0.88	8.00	9.12	4.30		
833	Newburyport	42° 48.7'	70° 51.9'	+0	31	*0.86	*0.86	7.8	9.0	4.2		
835	Salisbury Point	42° 50.3'	70° 54.5'	+0	55	*0.83	*0.56	7.64	8.71	4.01		
837	Merrimacport	42° 49.5'	70° 59.3'	+1	26	*0.76	*0.50	7.05	8.04	3.70		
839	Riverside	42° 45.8'	71° 04.6'	+1	56	*0.62	*0.35	5.72	6.52	2.80		
841	Plum Island Sound (south end)	42° 42.6'	70° 47.3'	+0	12	*0.94	*0.94	8.6	9.9	4.6		
843	Essex	42° 37.9'	70° 46.6'	+0	22	*1.00	*0.94	9.18	10.47	4.90		
845	Annisquam, Lobster Cove	42° 39.3'	70° 40.6'	+0	11	*0.97	*0.97	8.81	10.04	4.74		
847	Rockport	42° 39.5'	70° 36.9'	+0	06	*0.95	*0.97	8.70	9.92	4.71		
				on Boston, p.40								
849	Gloucester Harbor	42° 36.6'	70° 39.6'	+0	00	*0.93	*0.97	8.80	10.03	4.73		
851	Salem, Salem Harbor	42° 31.4'	70° 52.6'	-0	02	*0.94	*0.97	8.93	10.18	4.79		
853	Lynn, Lynn Harbor	42° 27.5'	70° 56.6'	+0	01	*0.97	*1.00	9.16	10.44	4.92		
	Boston Harbor											
855	Boston Light	42° 19.7'	70° 53.5'	-0	01	*0.95	*0.97	9.05	10.03	4.85		
857	Deer Island (south end)	42° 20.7'	70° 57.5'	+0	01	+0.00	*0.97	9.3	10.8	4.9		
859	BOSTON	42° 21.3'	71° 03.2'	<i>Daily predictions</i>						9.49	11.07	5.09
861	Charlestown, Charles River entrance	42° 22.5'	71° 03.0'	+0	00	+0.01	*1.00	9.5	11.0	5.0		
863	Amelia Earhart Dam, Mystic River	42° 23.7'	71° 04.6'	+0	01	+0.02	*1.01	9.56	10.89	5.11		
865	Chelsea St. Bridge, Chelsea River	42° 23.2'	71° 01.4'	+0	01	+0.06	*1.01	9.6	11.1	5.1		
867	Neponset, Neponset River	42° 17.1'	71° 02.4'	-0	02	+0.03	*1.00	9.5	11.0	5.0		
869	Moon Head	42° 18.5'	70° 59.3'	+0	01	+0.04	*0.99	9.4	10.9	5.0		
	Hingham Bay											
871	Nut Island, Quincy Bay	42° 16.8'	70° 57.3'	+0	01	+0.01	*0.99	9.42	10.74	5.05		
873	Weymouth Fore River Bridge	42° 14.7'	70° 58.1'	+0	09	+0.06	*1.00	9.5	11.0	5.0		
875	Crow Point, Hingham Harbor entrance	42° 15.7'	70° 53.6'	+0	02	+0.05	*0.99	9.4	10.9	5.0		
877	Hingham	42° 14.8'	70° 53.1'	+0	09	+0.08	*1.00	9.5	11.0	5.0		
879	Nantasket Beach, Weir River	42° 16.2'	70° 51.6'	+0	06	+0.07	*0.99	9.4	10.9	5.0		
881	Hull	42° 18.2'	70° 55.2'	+0	05	+0.07	*0.97	9.3	10.8	5.0		
	Cohasset Harbor to Davis Bank											
883	Cohasset Harbor (White Head)	42° 14.9'	70° 47.0'	+0	04	-0.02	*0.92	8.8	10.2	4.7		
885	Scituate, Scituate Harbor	42° 12.1'	70° 43.6'	+0	03	-0.01	*0.95	8.94	10.19	4.83		
887	Damons Point, North River	42° 09.6'	70° 44.0'	+0	20	+0.36	*0.89	8.5	9.9	4.5		
889	Brant Rock, Green Harbor River	42° 05.0'	70° 38.8'	+0	05	+0.03	*0.96	*1.03	9.08	10.35	4.89	
	Cape Cod Bay											
891	Duxbury, Duxbury Harbor	42° 02.3'	70° 40.2'	+0	06	+0.33	*1.04	9.89	11.27	5.30		
893	Plymouth	41° 57.6'	70° 39.7'	+0	04	+0.18	*1.03	9.76	11.13	5.22		
895	Cape Cod Canal, east entrance	41° 46.3'	70° 30.4'	-0	01	-0.03	*0.91	8.74	9.96	4.59		
897	Cape Cod Canal, Sagamore (Sta. 115)	41° 46.5'	70° 32.1'	-0	15	-0.06	*0.83	7.90	9.01	4.25		
899	Cape Cod Canal, Bourmedale (Sta. 200)	41° 46.2'	70° 33.7'	-0	29	-0.21	*0.66	6.18	7.05	3.37		
901	Cape Cod Canal, Bourme Bridge (Sta. 320)	41° 44.7'	70° 35.6'	-1	13	-0.24	*0.46	4.29	4.89	2.42		
903	Barnstable Harbor, Beach Point	41° 43.3'	70° 17.1'	+0	11	+0.30	*1.00	9.5	11.0	5.0		
905	Sesuit Harbor, East Dennis	41° 45.1'	70° 09.3'	+0	02	-0.01	*1.02	9.73	11.09	5.14		
907	Wellfleet	41° 55.8'	70° 02.5'	+0	14	+0.30	*1.05	10.0	11.6	5.4		
909	Provincetown	42° 03'	70° 11'	+0	16	+0.18	*0.95	9.1	10.6	4.8		
	Cape Cod											
911	Chatham, Stage Harbor	41° 40.0'	69° 58.0'	+0	46	+0.19	*0.43	3.95	4.50	2.23		
913	Chatham Harbor, Aunt Lydia's Cove	41° 41.6'	69° 57.0'	+0	56	+1.10	*0.61	5.77	6.58	3.12		
915	Pleasant Bay	41° 44.2'	69° 58.9'	+2	28	+3.27	*0.34	3.2	3.7	1.7		
917	Georges Shoal, Texas Tower	41° 41.3'	67° 45.6'	-0	47	-0.43	*0.44	4.2	4.8	2.2		
	Nantucket Sound, north side											
919	Saquatchewan Harbor	41° 40.1'	70° 03.4'	+0	46	+0.16	*0.41	3.72	4.24	2.14		
921	Wychmere Harbor	41° 39.9'	70° 03.9'	+0	52	+0.25	*0.39	3.7	4.3	1.9		
923	Dennisport	41° 39.5'	70° 06.9'	+1	03	+0.38	*0.36	3.4	4.1	1.8		
925	South Yarmouth, Bass River	41° 39.9'	70° 11.0'	+1	48	+1.46	*0.29	2.8	3.4	1.5		
927	Hyannis Port	41° 37.9'	70° 18.0'	+1	00	+0.26	*0.35	3.20	3.80	1.85		

Endnotes can be found at the end of table 2.

CAUTION

Cape Cod Canal, Railroad Bridge

Predictions of the times of low water must be used with caution because of the peculiarities in the behavior of the tide. Since the tide may be practically at a stand for as much as two hours before or after the predicted times of low water, the levels at other than high and low water times cannot be obtained in the usual way as in Table 3 (Height of Tide at Any Time). The peculiar behavior of the tide near low water, which is prevalent at this place, is illustrated by the first three curves; however there are brief periods each month when the behavior is as depicted by the fourth curve.

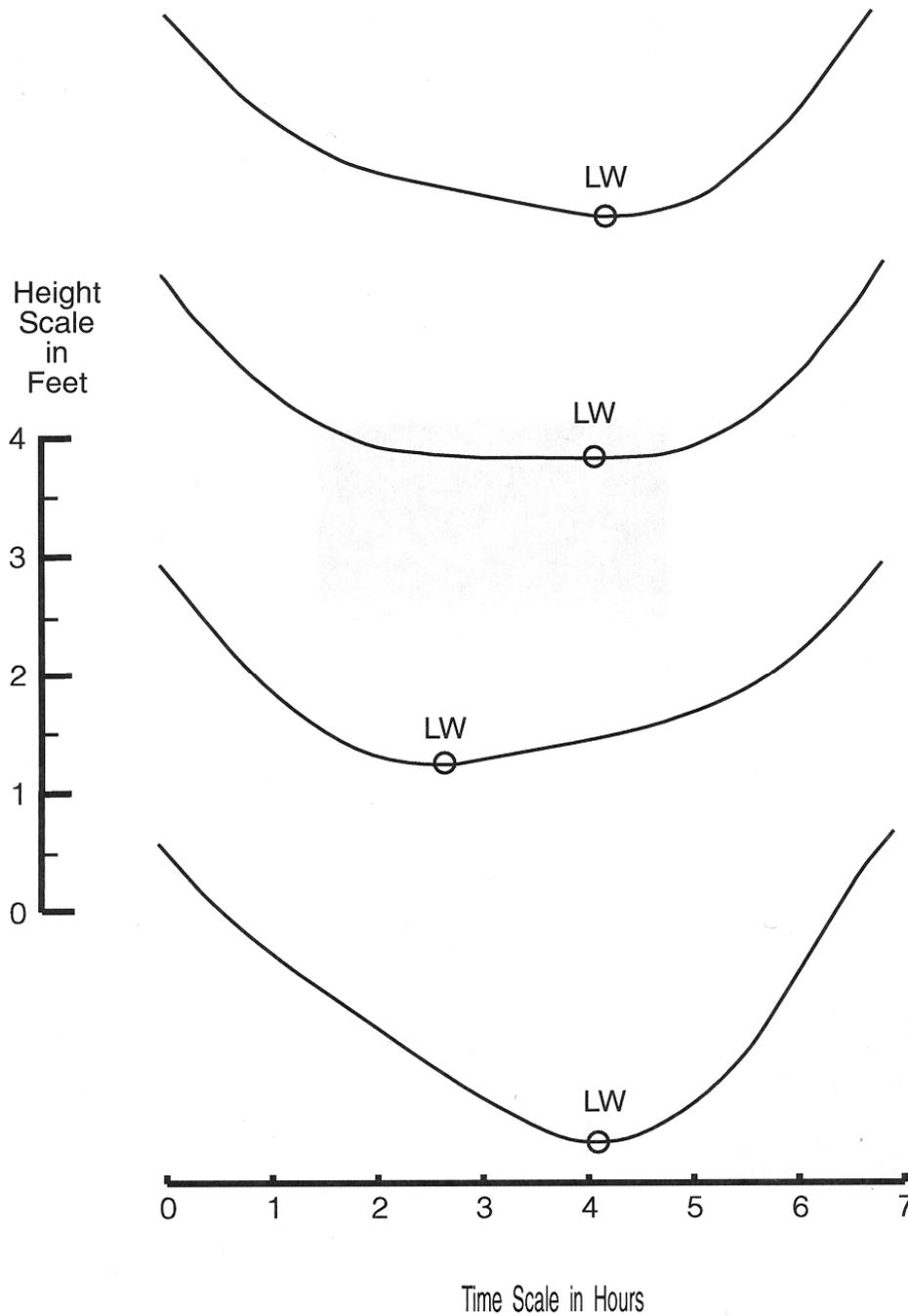


TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

Table with columns: No., PLACE, POSITION (Latitude, Longitude), DIFFERENCES (Time, Height), RANGES (Mean, Spring), Mean Tide Level. Contains data for Rhode Island, Connecticut, and New York locations.

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
		North	West	h	m	ft	ft	ft	ft	ft
VIRGINIA										
Chesapeake Bay, western shore Time meridian, 75° W										
on Ches. Bay Bridge Tunnel, p.116										
2213	Sunnybank, Little Wicomico River	37° 53.2'	76° 16.0'	+6 41	+6 45	*0.30	*0.30	0.80	0.96	0.40
2215	Great Wicomico River Light	37° 48.3'	76° 16.1'	+3 58	+4 11	*0.41	*0.41	1.10	1.32	0.50
2217	Fleeton Point	37° 48.8'	76° 16.5'	+3 58	+4 14	*0.41	*0.41	1.10	1.32	0.59
2219	Glebe Point, Great Wicomico River	37° 50.8'	76° 22.1'	+4 15	+4 37	*0.49	*0.83	1.20	1.44	0.70
2221	Windmill Point Light	37° 35.8'	76° 14.2'	+2 48	+3 12	*0.41	*0.41	1.10	1.32	0.50
on Hampton Roads, p.120										
<i>Rappahannock River</i>										
2223	Windmill Point	37° 36.9'	76° 17.4'	+1 55	+2 14	*0.49	*0.83	1.16	1.40	0.68
2225	Mill Creek (Grey Point)	37° 35.0'	76° 25.1'	+2 28	+2 42	*0.55	*0.83	1.30	1.57	0.69
2227	Millenbeck, Corrotoman River	37° 40.1'	76° 29.2'	+2 37	+3 05	*0.55	*0.83	1.30	1.57	0.70
2229	Urbanna	37° 39.0'	76° 34.5'	+2 50	+3 09	*0.59	*0.83	1.40	1.69	0.79
2231	Bayport	37° 45.3'	76° 40.4'	+3 22	+3 51	*0.67	*0.83	1.60	1.94	0.90
2233	Wares Wharf	37° 52.4'	76° 47.0'	+4 04	+4 34	*0.75	*0.33	1.88	2.27	0.98
2235	Tappahannock	37° 55.8'	76° 51.4'	+4 40	+5 18	*0.71	*0.83	1.74	2.11	0.95
on Washington, p.112										
2237	Saunders Wharf	38° 05.4'	77° 02.0'	-3 53	-4 41	*0.54	*0.66	1.50	1.65	0.85
2239	Port Royal	38° 10.4'	77° 11.4'	-2 19	-3 02	*0.68	*0.67	1.90	2.09	1.10
2241	Park Turn	38° 12.8'	77° 14.6'	-1 35	-2 30	*0.73	*0.20	2.13	2.34	1.09
2243	Hopyard Landing	38° 14.6'	77° 13.6'	-1 07	-1 57	*0.75	*0.67	2.10	2.31	1.19
2245	Massaponax Sand & Gravel	38° 15.3'	77° 24.6'	-0 39	-0 41	*0.88	*1.33	2.50	2.75	1.39
on Hampton Roads, p.120										
<i>Piankatank River</i>										
2247	Jackson Creek, Deltaville	37° 32.9'	76° 19.9'	+1 36	+2 04	*0.51	*0.83	1.20	1.45	0.70
2249	Dixie	37° 30.5'	76° 25.0'	+1 34	+2 14	*0.55	*0.83	1.30	1.57	0.72
2251	Wolf Trap Light	37° 23.4'	76° 11.4'	-0 02	+0 32	*0.67	*0.83	1.60	1.94	0.90
<i>Mobjack Bay</i>										
2253	Mobjack, East River	37° 22.4'	76° 20.8'	-0 17	+0 02	*0.98	*0.83	2.40	2.90	1.30
2255	Belleville	37° 24.7'	76° 26.3'	-0 06	+0 00	*1.02	*0.83	2.48	3.00	1.36
2257	Browns Bay	37° 18.1'	76° 24.2'	-0 11	-0 03	*0.98	*1.58	2.32	2.81	1.35
York River										
2259	Tue Marshes Light	37° 14.1'	76° 23.1'	+0 03	+0 03	*0.90	*0.83	2.17	2.63	1.19
2261	Yorktown, Goodwin Neck	37° 13.4'	76° 26.4'	+0 18	+0 15	*0.90	*0.83	2.20	2.66	1.23
2263	Yorktown, USCG Training Center	37° 13.6'	76° 28.7'	+0 10	+0 15	*0.95	*1.08	2.29	2.77	1.28
2265	Gloucester Point	37° 14.8'	76° 30.0'	+0 10	+0 11	*0.98	*1.00	2.38	2.93	1.30
2267	Cheatham Annex	37° 17.5'	76° 35.2'	+0 48	+0 40	*1.02	*0.83	2.50	3.03	1.34
2269	Roane Point	37° 26.9'	76° 42.4'	+1 47	+1 50	*1.14	*0.83	2.81	3.40	1.54
2271	West Point	37° 32.1'	76° 47.6'	+2 12	+2 38	*1.14	*0.83	2.80	3.39	1.50
2273	Wakema (Fraziers Ferry), Mattaponi River	37° 39.0'	76° 54.0'	+3 34	+3 57	*1.41	*1.67	3.42	4.14	1.90
<i>Pamunkey River</i>										
2275	Lester Manor	37° 35.0'	76° 59.4'	+4 45	+5 00	*1.05	*0.83	2.80	3.39	1.50
2277	Northbury	37° 37.5'	77° 07.3'	+6 03	+6 18	*1.37	*1.67	3.30	4.01	1.80
Chesapeake Bay, western shore										
2279	Messick Point, Back River	37° 06.5'	76° 19.1'	-0 07	+0 02	*0.97	*0.97	2.30	2.78	1.33
<i>Hampton Roads</i>										
2281	Old Point Comfort	37° 00.2'	76° 18.9'	+0 01	+0 09	*1.02	*0.83	2.52	3.05	1.38
2283	HAMPTON ROADS (Sewells Point)	36° 56.8'	76° 19.8'	<i>Daily predictions</i>				2.43	2.95	1.34
<i>Elizabeth River</i>										
2285	Craney Island Light	36° 53.5'	76° 20.3'	+0 18	+0 04	*1.06	*0.83	2.60	3.15	1.40
2287	Lafayette River	36° 53.0'	76° 16.5'	+0 06	+0 10	*1.10	*1.17	2.67	3.14	1.47
2289	Western Branch, Rt 337 bridge	36° 49.3'	76° 23.9'	+0 11	+0 13	*1.14	*1.17	2.77	3.26	1.53
2291	Norfolk	36° 51.1'	76° 17.9'	+0 23	+0 20	*1.14	*0.83	2.82	3.41	1.50
2293	Portsmouth, Naval Shipyard	36° 49.3'	76° 17.6'	+0 08	+0 10	*1.13	*1.17	2.76	3.26	1.52
2295	Money Point	36° 46.7'	76° 18.1'	+0 15	+0 12	*1.18	*1.17	2.86	3.46	1.57
2297	Deep Creek Entrance	36° 45.3'	76° 17.6'	+0 22	+0 18	*1.21	*1.25	2.92	3.53	1.61
<i>Nansemond River</i>										
2299	Pig Point	36° 55.0'	76° 26.1'	+0 42	+0 40	*1.05	*0.83	2.80	3.39	1.50
2301	Town Point	36° 53.0'	76° 30.5'	+0 37	+0 44	*1.22	*0.83	3.00	3.63	1.60
2303	Holidays Point (Kings Highway bridge)	36° 50.3'	76° 33.0'	+0 56	+1 03	*1.25	*1.67	3.00	3.63	1.63
James River										
2305	Newport News	36° 58.4'	76° 26.0'	+0 29	+0 28	*1.08	*0.83	2.60	3.15	1.40
2307	Huntington Park	37° 00.8'	76° 27.5'	+0 38	+0 39	*1.07	*0.92	2.62	3.17	1.42
2309	Menchville	37° 04.9'	76° 31.5'	+1 03	+1 19	*1.06	*0.83	2.60	3.15	1.40
2311	Smithfield, Pagan River	36° 59.1'	76° 37.8'	+1 34	+1 38	*1.14	*0.83	2.78	3.36	1.50
2313	Burwell Bay	37° 03.4'	76° 40.1'	+1 17	+1 39	*1.00	*1.17	2.42	2.93	1.35
2315	Fort Eustis	37° 08.2'	76° 37.3'	+1 44	+1 51	*0.92	*1.25	2.19	2.52	1.25
2317	Kingsmill	37° 13.2'	76° 39.8'	+2 05	+2 26	*0.94	*1.33	2.26	2.73	1.29
2319	Scotland	37° 11.1'	76° 47.0'	+2 44	+3 13	*0.78	*1.08	1.84	2.22	1.06
2321	Jamestown Wharf	37° 13.2'	76° 47.4'	+2 59	+3 15	*0.78	*1.42	1.81	2.09	1.08
<i>Chickahominy River</i>										
2323	Ferry Point (bridge)	37° 15.8'	76° 52.7'	+4 01	+4 26	*0.78	*0.83	1.90	2.30	1.04
2325	Wright Island Landing	37° 20.7'	76° 52.5'	+4 44	+5 03	*0.90	*0.83	2.20	2.66	1.20
2327	Lanexa	37° 24.2'	76° 54.7'	+5 00	+4 51	*1.05	*1.08	2.56	2.77	1.41
2329	Claremont	37° 13.9'	76° 56.9'	+3 51	+4 25	*0.76	*1.17	1.79	2.11	1.06
2331	Tettington	37° 14.4'	76° 56.6'	+3 52	+4 17	*0.79	*1.13	1.87	2.26	1.07

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
		North	West	h	m	h	m	ft	ft	ft
VIRGINIA										
James River-cont. Time meridian, 75° W										
on Hampton Roads, p.120										
2333	Sturgeon Point	37° 18.4'	77° 00.4'	+4 37	+5 09	*0.86	*0.83	2.10	2.54	1.10
2335	Willcox Wharf, Charles City	37° 19.0'	77° 05.9'	+5 30	+5 33	*0.89	*1.33	2.12	2.52	1.22
2337	Jordan Point	37° 18.8'	77° 13.4'	+6 16	+6 39	*1.02	*0.83	2.50	3.02	1.40
on Washington, p.112										
2339	City Point, Hopewell	37° 18.8'	77° 16.2'	-4 31	-5 36	*0.87	*0.80	2.45	2.58	1.35
2341	Puddledock, Appomattox River	37° 16.0'	77° 22.3'	-3 49	-4 32	*1.00	*1.07	2.80	3.08	1.55
2343	Haxall	37° 22.4'	77° 14.6'	-4 10	-4 53	*0.99	*1.33	2.70	2.97	1.60
2345	Chester	37° 23.0'	77° 22.7'	-3 39	-3 59	*1.02	*0.67	2.90	3.19	1.60
2347	Meadowville	37° 22.7'	77° 19.4'	-3 46	-4 17	*1.05	*1.33	2.90	3.19	1.60
2349	Richmond Deepwater Terminal	37° 27.5'	77° 25.2'	-3 39	-3 51	*1.08	*0.93	3.05	3.25	1.66
2351	Richmond (river locks)	37° 31.5'	77° 25.2'	-3 16	-3 26	*1.16	*1.33	3.20	3.52	1.80
Chesapeake Bay, southern shore										
on Ches. Bay Bridge Tunnel, p.116										
2353	Little Creek, NAB	36° 54.7'	76° 10.5'	+0 08	+0 09	*1.01	*1.17	2.57	3.08	1.42
2355	CHESAPEAKE BAY BRIDGE TUNNEL	36° 58.0'	76° 06.8'	<i>Daily predictions</i>				2.55	3.07	1.40
2357	Lynnhaven Inlet, Virginia Pilots Dock	36° 54.4'	76° 05.4'	+0 40	+0 38	*0.88	*1.08	2.22	2.66	1.24
Lynnhaven Bay										
2359	Bayville	36° 53.6'	76° 06.3'	+1 52	+2 48	*0.67	*0.83	1.70	2.04	1.00
2361	Buchanan Creek entrance	36° 51.7'	76° 06.9'	+2 02	+2 56	*0.75	*0.83	1.90	2.28	1.00
2363	Brown Cove	36° 52.5'	76° 03.7'	+2 05	+2 43	*0.65	*0.83	1.64	1.96	0.92
2365	Broad Bay Canal	36° 54.1'	76° 03.7'	+2 05	+2 00	*0.56	*0.92	1.38	1.66	0.80
2367	Long Creek	36° 54.2'	76° 04.2'	+1 15	+1 15	*0.68	*1.08	1.68	2.02	0.97
Outer Coast										
on Duck Pier, p.124										
2369	Cape Henry	36° 55.8'	76° 00.4'	+0 31	+0 36	*0.96	*0.93	3.12	3.71	1.68
2371	Virginia Beach	36° 50.6'	75° 58.3'	+0 15	+0 16	*1.07	*1.07	3.34	3.97	1.85
2373	Rudee Inlet entrance	36° 49.9'	75° 58.1'	+0 02	+0 02	*1.01	*0.86	3.28	3.90	1.77
2375	Rudee Inlet, interior channel	36° 49.9'	75° 58.4'	+0 17	+0 17	*1.02	*0.94	3.29	3.92	1.78
2377	Rudee Heights, Lake Wesley	36° 49.5'	75° 58.5'	+0 18	+0 16	*1.03	*1.00	3.32	3.95	1.81
2379	Lake Rudee, south end	36° 49.5'	75° 58.9'	+0 20	+0 19	*1.05	*1.07	3.39	4.03	1.85
2381	Sandbridge	36° 41.5'	75° 55.2'	+0 07	+0 07	*1.04	*1.04	3.35	3.99	1.85
NORTH CAROLINA										
on Oregon Inlet, p.128										
2383	DUCK PIER	36° 11.0'	75° 44.8'	<i>Daily predictions</i>				3.22	3.96	1.75
2385	Albemarle and Pamlico Sounds <9>	-	-	-	-	-	-	-	-	-
2387	Kitty Hawk (ocean)	36° 06.1'	75° 42.6'	-0 01	+0 02	*1.01	*1.43	3.19	3.80	1.80
2389	Jennettes Pier, Nags Head (ocean)	35° 54.6'	75° 35.5'	-0 05	+0 01	*1.04	*1.43	3.26	3.88	1.80
on Cape Hatteras, p.132										
2391	Roanoke Sound Channel	35° 48'	75° 35'	+1 37	+1 17	*0.47	*0.14	0.5	0.6	0.3
2393	OREGON INLET MARINA	35° 47.7'	75° 32.9'	<i>Daily predictions</i>				0.89	1.08	0.58
2395	Oregon Inlet	35° 46'	75° 31'	-0 03	-0 27	*1.98	*0.71	2.0	2.4	1.1
2397	Oregon Inlet (USCG Station)	35° 46.1'	75° 31.6'	-0 22	-0 51	*2.00	*0.69	1.97	2.30	1.07
2399	Oregon Inlet Bridge	35° 46.4'	75° 32.3'	-0 17	-0 55	*1.89	*0.64	1.9	2.3	1.1
2401	Oregon Inlet Channel	35° 46.5'	75° 33.5'	-0 09	-0 34	*1.23	*0.43	1.2	1.4	0.7
2403	Old House Channel	35° 46.5'	75° 34.9'	+0 34	+0 28	*0.66	*0.21	0.7	0.8	0.4
2405	Davis Slough	35° 44.9'	75° 33.2'	+0 09	-0 01	*0.85	*0.29	0.9	1.1	0.5
2407	Rodanthe, Pamlico Sound	35° 35.7'	75° 28.3'	+2 03	+1 36	*0.79	*0.69	0.72	0.84	0.45
2409	Roanoke Marshes Light, Croatan Sound	35° 48.7'	75° 42.0'	+2 10	+2 04	*0.50	*0.85	0.40	0.59	0.31
2411	Oyster Creek, Croatan Sound	35° 50.7'	75° 39.3'	+2 12	+2 06	*0.51	*0.77	0.41	0.60	0.31
2413	Manns Harbor, Croatan Sound	35° 54.2'	75° 46.2'	+2 31	+2 26	*0.37	*0.54	0.37	0.40	0.23
on Cape Hatteras, p.132										
2415	Cape Hatteras	35° 14'	75° 31'	+0 01	+0 01	*1.00	*1.08	3.6	4.3	2.0
2417	CAPE HATTERAS FISHING PIER	35° 13.4'	75° 38.1'	<i>Daily predictions</i>				2.99	3.60	1.61
2419	Peters Ditch, Avon, Pamlico Sound	35° 21.0'	75° 30.7'	+3 20	+3 40	*0.17	*0.17	0.43	0.61	0.30
2421	Hatteras, Pamlico Sound	35° 12.3'	75° 42.2'	+1 16	+1 25	*0.17	*1.08	0.41	0.49	0.33
2423	Hatteras Inlet	35° 12'	75° 44'	+0 08	+0 13	*0.66	*0.83	2.0	2.4	1.1
2425	Ocracoke Inlet	35° 04'	76° 01'	+0 09	+0 11	*0.63	*0.83	1.9	2.3	1.0
2427	Ocracoke, Ocracoke Island	35° 06.9'	75° 59.3'	+0 15	+0 47	*0.34	*0.50	0.99	1.19	0.56
2429	Cape Lookout Bight	34° 36.8'	76° 32.3'	-0 17	-0 12	*1.35	*1.33	4.05	4.86	2.19
2431	Cape Lookout (ocean)	34° 36.5'	76° 31.7'	-0 22	-0 22	*1.15	*1.25	3.44	4.13	1.87
2433	Shell Point, Harkers Island	34° 41'	76° 32'	+1 52	+2 34	*0.54	*0.83	1.6	1.8	0.9
2435	Harkers Island Bridge	34° 43'	76° 35'	+2 08	+2 31	*0.52	*0.67	1.6	1.7	0.9
2437	Davis, Core Sound	34° 47.8'	76° 27.3'	+3 13	+3 39	*0.38	*0.75	1.08	1.23	0.64
2439	Channel Marker Lt. 59	34° 42'	76° 37'	+1 25	+1 27	*0.66	*0.83	2.0	2.3	1.1
2441	Lenoxville Point	34° 42.5'	76° 37.2'	+1 18	+1 11	*0.80	*1.00	2.37	2.84	1.31
2443	North River Bridge	34° 47'	76° 37'	+2 25	+3 08	*0.59	*0.67	1.8	2.0	1.0
2445	Beaufort Inlet Channel Range	34° 42'	76° 40'	+0 07	+0 11	*1.07	*1.07	3.2	3.8	1.6
2447	Beaufort, Taylor Creek	34° 42.7'	76° 38.7'	+0 52	+0 48	*0.95	*1.17	2.82	3.38	1.55
2449	Beaufort, Duke Marine Lab	34° 43.2'	76° 40.2'	+0 39	+0 36	*1.05	*1.17	3.11	3.58	1.70
2451	Gallant Channel	34° 44'	76° 40'	+0 49	+0 44	*1.01	*1.25	3.0	3.5	1.7
2453	Newport River (Yacht Club)	34° 46.1'	76° 40.3'	+1 03	+1 13	*1.03	*1.00	3.08	3.70	1.66
2455	Core Creek Bridge	34° 50'	76° 42'	+1 26	+1 46	*0.68	*0.83	2.1	2.3	1.1
2457	Fort Macon, USCG Station	34° 42'	76° 41'	+0 17	+0 18	*1.03	*1.25	3.1	3.7	1.7
2459	Morehead City	34° 43'	76° 42'	+0 26	+0 27	*1.04	*1.25	3.1	3.7	1.7
2461	Morehead City Harbor	34° 43.2'	76° 43.7'	+0 35	+0 37	*1.04	*1.17	3.08	3.70	1.68

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

Table with columns: No., PLACE, POSITION (Latitude, Longitude), DIFFERENCES (Time, Height), RANGES (Mean, Spring), and Mean Tide Level. It lists data for various Florida locations including St. Johns River-cont., Atlantic Coast, and Indian River.

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

Table with 11 columns: No., PLACE, POSITION (Latitude, Longitude), DIFFERENCES (Time: High/Low Water, Height: High/Low Water), RANGES (Mean, Spring), and Mean Tide Level. The table lists various locations in Florida, including Indian River, St. Lucie River, Loxahatchee River, and Lake Worth, with their respective coordinates and tidal data.

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Diurnal	
				High Water	Low Water	High Water	Low Water			
	FLORIDA Northern Gulf Coast-cont. Time meridian, 75° W	North	West	h	m	h	m	ft	ft	ft
on Cedar Key, p.184										
4185	Halls River bridge, Homosassa River	28° 48.0'	82° 36.2'	+4	30	+5	41	*0.16	*0.13	0.45 0.72 0.30
4187	Ozello, St. Martins River	28° 49.5'	82° 39.5'	+4	25	+5	21	*0.17	*0.14	0.49 0.74 0.33
4189	Mangrove Pt., Crystal Bay	28° 52.2'	82° 43.4'	+0	22	+0	41	*0.95	*0.76	2.82 3.65 1.89
4191	Ozello north, Crystal Bay	28° 51.8'	82° 40.0'	+1	25	+3	17	*0.50	*0.25	1.53 2.03 0.93
4193	Dixie Bay, Salt River, Crystal Bay	28° 52.9'	82° 38.1'	+2	00	+3	06	*0.55	*0.33	1.66 2.15 1.04
<i>Crystal River</i>										
4195	Florida Power	28° 57.6'	82° 43.5'	-0	03	+0	30	*1.04	*0.89	3.00 3.90 2.06
4197	Shell Island, north end	28° 55.4'	82° 41.5'	+0	36	+1	30	*0.79	*0.59	2.32 3.01 1.53
4199	Twin Rivers Marina	28° 54.3'	82° 38.3'	+1	46	+2	30	*0.64	*0.49	1.90 2.53 1.26
4201	Kings Bay	28° 53.9'	82° 35.9'	+2	20	+3	07	*0.59	*0.41	1.76 2.31 1.14
4203	Withlacoochee River entrance	29° 00'	82° 46'	+0	07	+0	55	*0.91	*0.95	2.5 3.5 1.8
4205	CEDAR KEY	29° 08.1'	83° 01.9'					<i>Daily predictions</i>		2.83 3.80 2.05
4207	Suwannee River entrance	29° 17'	83° 09'	+0	06	+0	18	*0.88	*0.95	2.4 3.4 1.8
4209	Suwannee, Salt Creek	29° 19.7'	83° 09.1'	-0	07	+0	24	*0.91	*0.83	2.65 3.47 1.84
4211	Horseshoe Point	29° 26.2'	83° 17.6'	-0	21	+0	08	*0.95	*0.94	2.69 3.58 1.94
4213	Pepperfish Keys	29° 30'	83° 22'	+0	12	+0	24	*0.88	*0.95	2.4 3.4 1.8
4215	Steinhatchee River ent., Deadman Bay	29° 40.3'	83° 23.4'	+0	02	+0	00	*1.03	*1.08	2.87 3.83 2.12
on St. Marks River Ent., p.188										
4217	Fishermans Rest	29° 44'	83° 32'	-0	14	-0	02	*0.93	*0.86	2.4 3.4 1.8
4219	Spring Warrior Creek	29° 55.2'	83° 40.3'	-0	25	-0	06	*0.98	*0.84	2.68 3.46 1.86
4221	Rock Islands	29° 58'	83° 50'	-0	03	+0	04	*0.93	*0.91	2.4 3.4 1.8
<i>Apalachee Bay</i>										
4223	Mandalay, Aucilla River	30° 07.6'	83° 58.5'	+0	25	+0	57	*0.69	*0.55	1.92 2.47 1.30
4225	ST. MARKS RIVER ENTRANCE	30° 04.7'	84° 10.7'					<i>Daily predictions</i>		2.63 3.49 1.94
4227	St. Marks, St. Marks River	30° 09'	84° 12'	+0	36	+1	04	*0.93	*0.91	2.4 3.3 1.8
4229	Shell Point, Walker Creek	30° 03.6'	84° 17.4'	-0	03	-0	03	*1.02	*1.08	2.65 3.56 2.00
4231	Bald Point, Ochlockonee Bay	29° 56.9'	84° 20.5'	+0	33	+0	19	*0.85	*0.70	2.28 3.07 1.60
4233	Panacea, Dickerson Bay	30° 01.7'	84° 23.2'	+0	16	+0	20	*1.01	*0.82	2.73 3.66 1.90
4235	Alligator Point, St. James Island	29° 54.2'	84° 24.8'	-0	08	+0	11	*0.75	*0.73	1.95 2.82 1.45
4237	Turkey Point, St. James Island	29° 54.9'	84° 30.7'	-0	16	-0	21	*0.78	*0.98	1.92 2.74 1.57
on Apalachicola, p.192										
<i>St. George Sound</i>										
4239	Dog Island, east end	29° 48.6'	84° 35.1'	-1	43	-2	00	*1.50	*1.40	1.70 2.46 1.41
4241	Dog Island, west end	29° 47'	84° 40'	-1	53	-2	38	*1.73	*1.40	-- 2.6 1.3
4243	Lanark	29° 52.7'	84° 35.7'	-1	38	-1	48	*1.60	*1.53	1.81 2.62 1.51
4245	Carrabelle, Carrabelle River	29° 51'	84° 40'	-1	25	-2	13	*1.60	*1.60	-- 2.6 1.3
4247	South Carrabelle Beach	29° 48.1'	84° 44.2'	-1	16	-1	21	*1.50	*1.53	1.66 2.46 1.44
4249	St. George Island, Northeast End	29° 46.0'	84° 42.0'	+0	13	+0	05	*1.36	*1.25	1.56 2.20 1.28
4251	St. George Island, East End	29° 41.2'	84° 47.2'	-2	02	-2	48	*1.13	*1.00	-- 1.9 1.1
4253	St. George Island, Rattlesnake Cove	29° 41.5'	84° 47.5'	-1	00	-1	35	*1.33	*1.20	-- 2.2 1.3
4255	St. George Island, 12th St. W (Bayside)	29° 39'	84° 54'	-0	55	-1	08	*1.26	*1.26	-- 2.2 1.1
4257	St. George Island, Sikes Cut	29° 36.8'	84° 57.5'	+0	07	+0	07	*1.15	*1.30	1.22 1.97 1.13
<i>Apalachicola Bay</i>										
4259	Cat Point	29° 43'	84° 53'	-0	40	-1	17	*1.07	*0.60	-- 2.2 1.1
4261	White Beach, East Bay	29° 47.1'	84° 53.9'	-0	11	+0	10	*1.21	*1.40	1.27 1.98 1.19
4263	APALACHICOLA	29° 43.6'	84° 58.9'					<i>Daily predictions</i>		1.11 1.61 0.96
4265	Apalachicola River (A&N RR bridge)	29° 45.8'	85° 02.0'	+0	28	+0	35	*0.85	*0.83	0.97 1.39 0.81
4267	Huckleberry Landing, Jackson River	29° 46.2'	85° 05.1'	+2	07	+1	52	*0.73	*0.95	0.72 1.21 0.74
4269	Lower Anchorage	29° 36'	85° 03'	-0	17	-0	35	*0.93	*1.00	-- 1.5 0.8
4271	West Pass, St. Vincent Island	29° 38'	85° 06'	-0	27	-0	27	*0.87	*1.00	-- 1.4 0.7
4273	Eleven Mile, St. Vincent Sound	29° 42.4'	85° 09.2'	+1	44	+1	31	*1.02	*1.03	1.12 1.67 0.97
on Pensacola, p.196										
<i>St. Joseph Bay</i>										
4275	Port Saint Joe #	29° 48.9'	85° 18.8'	-1	06	-1	45	*1.11	*1.11	1.15 1.65 0.78
4277	St. Joseph Point #	29° 52.4'	85° 23.4'	-2	17	-2	48	*1.02	*1.02	1.17 1.56 0.67
4279	White City, ICWW #	29° 52.8'	85° 13.3'	-0	40	+1	31	*0.77	*0.77	0.86 1.01 0.52
Time meridian, 90° W										
<i>St. Andrew Bay</i>										
4281	Channel entrance #	30° 07.5'	85° 43.8'	-1	39	-1	50	*1.02	*1.02	1.20 1.29 0.67
4283	Panama City #	30° 09.1'	85° 40.0'	-0	57	-1	11	*1.05	*1.66	1.25 1.34 0.7
4285	Panama City Beach (outside) #	30° 12.8'	85° 52.7'	-2	17	-2	44	*1.05	*1.05	1.22 1.37 0.68
4287	Parker #	30° 08'	85° 37'	-0	05	+0	22	*1.20	*1.20	-- 1.5 0.7
4289	Laird Bayou, East Bay #	30° 07.3'	85° 32.7'	-0	28	-1	05	*1.13	*1.13	1.28 1.47 0.75
4291	Farmdale, East Bay #	30° 01.0'	85° 28.2'	-0	16	-0	59	*1.17	*1.17	1.31 1.56 0.78
4293	Allanton, East Bay #	30° 01.8'	85° 27.9'	-0	16	-1	01	*1.15	*1.15	1.30 1.53 0.76
4295	Wetappo Creek, East Bay #	30° 02'	85° 24'	+1	01	+1	40	*1.10	*1.10	-- 1.4 0.7
4297	Overstreet, East Bay #	29° 59.8'	85° 22.2'	+0	17	+0	04	*1.20	*1.20	1.34 1.58 0.82
4299	Alligator Bayou #	30° 10.2'	85° 45.3'	-0	47	-1	10	*1.07	*1.07	1.25 1.37 0.68
4301	Lynn Haven, North Bay #	30° 15.3'	85° 38.9'	-0	31	-1	01	*1.10	*1.10	1.25 1.47 0.73
4303	West Bay Creek, West Bay #	30° 17.6'	85° 51.5'	-0	10	-0	47	*1.13	*1.13	1.30 1.46 0.74
<i>Choctawhatchee Bay <11></i>										
4305	East Pass (Destin)	30° 23.7'	86° 30.8'	-0	33	-0	34	*0.49	*0.33	0.59 0.61 0.31
4307	Shalimar, Garnier Bayou #	30° 26.1'	86° 35.2'	+3	33	+3	03	*0.32	*0.32	0.36 0.41 0.21
4309	Harris, The Narrows#	30° 24'	86° 44'	+1	37	+2	51	*1.10	*1.10	-- 1.4 0.7
4311	Navarre Beach	30° 22.6'	86° 51.9'	-2	07	-2	26	*1.07	*1.67	1.26 1.38 0.69
4313	Fishing Bend, Santa Rosa Sound #	30° 20'	87° 08'	+0	41	+0	51	*1.10	*1.10	-- 1.4 0.7

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Diurnal	
				High Water	Low Water	High Water	Low Water			
TEXAS Time meridian, 90° W		North	West	h	m	h	m	ft	ft	ft
on Galveston, p.216										
4599	Freeport, US Coast Guard Station #	28° 56.6'	95° 18.1'	-1	18	-1	08	*1.25	*0.87	1.39 1.80
4601	Sargent, ICWW #	28° 46.3'	95° 37.0'	+3	04	+0	17	*0.51	*0.13	0.64 0.72
4603	Matagorda City, ICWW #	28° 46.2'	95° 54.8'	+3	13	+0	51	*0.41	*0.17	0.49 0.54
4605	Matagorda Bay Entrance Channel #	28° 25.6'	96° 19.7'	-2	48	-2	48	*0.91	*0.37	1.09 1.23
4607	PORT O'CONNOR, MATAGORDA BAY #	28° 27'	96° 24'	<i>Daily predictions, p.220</i>				--	0.5	0.2
4609	Port Lavaca, Matagorda Bay #	28° 37'	96° 37'	---				--	0.7	0.3
4611	Rockport, Aransas Bay #	28° 01.3'	97° 02.8'	---				0.36	0.36	0.18
4613	Aransas, Aransas Pass #	27° 50.2'	97° 02.3'	-1	12	-1	17	*0.99	*0.63	1.11 1.37
4615	Corpus Christi #	27° 34.8'	97° 13.0'	-1	09	-1	30	*1.17	*0.73	1.31 1.63
4617	Riviera Beach, Baffin Bay #	27° 17'	97° 40'	---				--	0.3	0.1
on Padre Island, p.224										
4619	South Padre Island, Brazos Santiago Pass #	26° 04.1'	97° 09.3'	-0	04	-0	02	*0.96	*0.88	1.22 1.43
4621	PADRE ISLAND (south end) #	26° 04.1'	97° 09.4'	<i>Daily predictions</i>				1.25	1.47	0.87
4623	Queen Isabella Causeway (east end) #	26° 04.7'	97° 10.2'	+0	24	+0	21	*0.87	*0.75	1.11 1.28
4625	Queen Isabella Causeway (west end) #	26° 04.3'	97° 11.5'	+0	52	+0	30	*0.81	*0.63	1.05 1.19
4627	Port Isabel #	26° 03.6'	97° 12.9'	+0	10	+0	26	*0.92	*1.00	1.15 1.37
4629	South Bay entrance #	26° 03.1'	97° 10.9'	+0	14	+0	21	*0.91	*0.94	1.14 1.35
on Tampico Harbor, p.228										
MEXICO <13> Gulf of Mexico										
4631	Matamoras #	25° 53'	97° 31'	+0	55	+0	40	*1.00	*1.00	-- 1.4
4633	TAMPICO HARBOR (Madero) #	22° 13'	97° 51'	<i>Daily predictions</i>				--	1.4	0.7
4635	Tuxpan #	21° 00'	97° 20'	+0	02	+0	04	*1.21	*1.21	-- 1.7
4637	Veracruz #	19° 12'	96° 08'	-0	19	-0	12	*1.21	*1.21	-- 1.7
4639	Alvarado #	18° 46'	95° 46'	+0	51	+0	27	*0.93	*0.93	-- 1.3
4641	Coatzacoalcos #	18° 09'	94° 25'	-0	40	+0	05	*1.07	*1.07	-- 1.5
4643	Frontera #	18° 32'	92° 39'	-0	18	-0	27	*1.14	*1.14	-- 1.6
4645	Progreso #	21° 18'	89° 40'	+1	19	+0	23	*1.29	*1.29	-- 1.8
on Key West, p.172										
BELIZE										
4647	Belize City	17° 30'	88° 11'	+0	14	+0	47	*0.46	*0.46	0.6 0.7
4649	Punta Gorda	16° 06'	88° 49'	-0	27	+0	30	*0.46	*0.46	0.6 0.8
on Guatemala <13>										
4651	Rio Dulce entrance	15° 50'	88° 49'	-1	25	-1	35	*0.92	*0.92	1.2 1.5
on Honduras <13>										
HONDURAS <13>										
4653	Puerto Cortes	15° 50'	87° 57'	-0	43	-0	02	*0.38	*0.38	0.5 0.6
4655	Port Royal, Isla de Roatan	16° 24'	86° 20'	-2	41	-2	35	*0.92	*0.92	1.2 1.4
4657	Puerto Castilla	16° 00'	86° 02'	-0	48	-0	13	*0.46	*0.46	0.6 0.8
4659	Isla de Guanaja	16° 29'	85° 54'	-1	26	-1	42	*0.72	*0.72	1.0 1.3
4661	Harbor Bay, Great Swan Island	17° 24'	83° 56'	-1	18	-0	33	*0.51	*0.51	0.7 0.9
on Nicaragua <13>										
NICARAGUA <13>										
4663	Cabo Gracias a Dios	15° 00'	83° 10'	+0	23	-0	32	*0.57	*0.57	1.2 1.6
4665	Puerto Cabezas	14° 01'	83° 23'	+3	05	+3	11	*0.56	*0.56	1.4 1.9
4667	Cayos de Perlas	12° 25'	83° 25'	+4	53	+4	33	*0.46	*0.46	0.9 1.3
4669	Isla del Maiz Grande	12° 10'	83° 03'	+4	38	+4	13	*0.46	*0.46	0.9 1.3
4671	Bluefields Lagoon entrance	12° 00'	83° 42'	+3	54	+3	27	*0.28	*0.28	0.7 1.0
4673	San Juan del Norte (Greytown)	10° 55'	83° 42'	+4	03	+4	03	*0.28	*0.28	0.7 1.1
on Costa Rica <13>										
COSTA RICA <13>										
4675	Limon	10° 00'	83° 02'	-0	32	-0	29	*1.00	*1.00	0.7 1.2
on Panama <13>										
PANAMA <13> Time meridian, 75° W										
4677	Bocas del Toro, Almirante Bay	9° 21'	82° 15'	+0	21	+0	24	*1.14	*1.14	0.8 1.2
4679	CRISTOBAL (COLON)	9° 21'	79° 55'	<i>Daily Predictions</i>				0.7	1.1	0.4
4681	Bahia de Caledonia	8° 54'	77° 41'	+0	12	+0	00	*1.00	*1.00	0.7 1.1
on Bermuda Islands										
BERMUDA ISLANDS Time meridian, 60° W										
4683	Ireland Island	32° 19'	64° 50'	+0	11	+0	13	*1.07	*1.23	2.6 3.1
4685	Ferry Reach (Biological Station)	32° 22.2'	64° 41.7'	-0	04	+0	03	*0.93	*1.00	2.4 2.9
4687	ST. GEORGES ISLAND	32° 22.4'	64° 42.2'	<i>Daily Predictions</i>				2.5	3.0	1.3
on Bahamas										
BAHAMAS Time meridian, 75° W										
4689	Guinchos Cay	22° 45'	78° 07'	+0	06	+0	16	*0.79	*1.11	2.1 2.6
4691	Elbow Cay, Cay Sal Bank	23° 57'	80° 28'	+1	18	+1	28	*0.79	*1.11	2.1 2.6
4693	Fresh Creek, Andros Island	24° 44'	77° 48'	+0	05	-0	08	*0.97	*1.11	2.4 2.9
4695	North Cat Cay	25° 33'	79° 17'	+0	22	+0	32	*0.86	*1.11	2.3 2.8
4697	North Bimini	25° 44'	79° 18'	+0	05	+0	22	*0.90	*1.11	2.4 2.9
4699	Memory Rock	26° 57'	79° 07'	+0	16	+0	26	*0.86	*1.11	2.3 2.7

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
	BAHAMAS Time meridian, 75° W	North	West	h	m	h	m	ft	ft	ft
				on Settlement Point, p.240						
4701	SETTLEMENT POINT, GRAND BAHAMAS ISLAND	26° 42.6'	78° 59.8'	<i>Daily predictions</i>				2.7	3.1	1.4
4703	Pelican Harbor	26° 23'	76° 58'	+0 18	+0 28	*0.97	*1.11	2.6	3.1	1.4
4705	Nassau, New Providence Island	25° 05'	77° 21'	-0 08	-0 03	*0.98	*1.44	2.6	3.1	1.9
4707	Eleuthera Island, west coast	25° 15'	76° 19'	+2 09	+2 33	*0.94	*1.11	2.4	2.9	1.3
4709	Eleuthera Island, east coast	24° 56'	76° 09'	+0 11	+0 23	*0.82	*1.11	2.2	2.6	1.2
4711	The Bight, Cat Island	24° 19'	75° 26'	-0 37	-0 27	*0.97	*1.11	2.6	3.1	1.4
4713	San Salvador	24° 03'	74° 33'	-0 08	-0 06	*0.86	*1.11	2.3	2.8	1.3
4715	Clarence Harbor, Long Island	23° 06'	74° 59'	+0 41	+0 51	*0.97	*1.11	2.6	3.1	1.4
4717	Nurse Channel	22° 31'	75° 51'	+0 00	+0 10	*0.79	*1.11	2.1	2.6	1.1
4719	Datum Bay, Acklin Island	22° 10'	74° 18'	-0 21	-0 11	*0.75	*1.11	2.0	2.6	1.1
4721	Mathew Town, Great Inagua Island	20° 57'	73° 41'	+0 08	+0 28	*0.79	*1.11	2.1	2.6	1.2
4723	Abraham Bay, Mayaguana Island	22° 22'	73° 00'	+0 02	-0 10	*0.79	*1.11	2.0	2.5	1.1
4725	Hawks Nest Anchorage, Turks Islands	21° 26'	71° 07'	-0 27	-0 17	*0.79	*1.11	2.1	2.6	1.1
	CUBA			on Hampton Roads, p.120						
4727	La Isabela	22° 56'	80° 00'	+0 20	+0 16	*0.64	*0.64	1.6	2.0	0.9
4729	Bahia de Nuevitas entrance	21° 38'	77° 07'	-0 05	-0 46	*0.52	*0.52	1.3	1.5	0.7
4731	Nuevitas, Bahia de Nuevitas	21° 35'	77° 15'	+1 32	+1 33	*0.56	*0.56	1.4	1.6	0.7
4733	Puerto Padre	21° 14'	76° 33'	-0 05	-0 10	*0.84	*0.84	2.1	2.4	1.1
4735	Puerto de Gibara	21° 07'	76° 07'	-1 06	-1 03	*0.76	*0.76	1.9	2.2	1.0
4737	Bahia de Nipe entrance	20° 47'	75° 34'	-0 55	-1 01	*0.81	*0.81	2.0	2.3	1.1
4739	Antilla, Bahia de Nipe	20° 50'	75° 44'	-0 37	-0 44	*0.89	*0.89	2.2	2.5	1.2
4741	Bahia de Levisa entrance	20° 45'	75° 28'	-1 03	-1 07	*0.77	*0.77	1.9	2.2	1.0
4743	Sagua de Tanamo, Bahia de	20° 43'	75° 19'	-1 00	-1 08	*0.76	*0.76	1.9	2.2	1.0
4745	MŌA, HOLGUIN	20° 39.2'	74° 54.6'	<i>Daily predictions, p.256</i>				1.74	--	--
4747	Baracoa	20° 21'	74° 30'	-1 14	-1 18	*0.68	*0.68	1.7	2.0	0.9
4749	Punta Maisi	20° 15'	74° 08'	-1 16	-1 20	*0.88	*0.88	2.2	2.8	1.2
				on San Juan, p.264						
4751	Guantanamo Bay	19° 54'	75° 09'	-0 17	-0 23	*0.89	*0.89	--	1.4	0.7
4753	SANTIAGO DE CUBA	19° 59.1'	75° 52.5'	<i>Daily predictions, p.252</i>				1.01	--	--
4755	Puerto de Pilon	19° 54'	77° 19'	+0 11	+0 13	*0.72	*0.72	--	1.2	0.6
4757	Manzanillo, Golfo de Guacanayabo	20° 21'	77° 07'	+1 41	+1 38	+1.39	+1.39	--	2.2	1.1
4759	Casilda	21° 45'	79° 59'	+1 04	+0 52	*0.65	*0.65	--	1.0	0.5
	<i>Bahia de Cienfuegos</i>			MeanDiurnal						
4761	Punta Pasacaballos	22° 04'	80° 27'	+0 49	+0 58	*0.80	*0.80	--	1.3	0.6
4763	CIENFUEGOS	22° 09.1'	80° 27.3'	<i>Daily predictions, p.244</i>				0.89	--	--
4765	Carapachibey, Isla de Pinos	21° 27'	82° 55'	+0 43	+0 52	*0.54	*0.54	--	0.9	0.4
4767	La Coloma	22° 14'	83° 34'	+2 04	+2 23	*0.54	*0.54	--	0.9	0.4
4769	Cabo San Antonio	21° 52'	84° 58'	-0 50	-0 07	*0.92	*0.92	1.2	1.5	0.8
				on Key West, p.172						
4771	Bahia Honda	22° 58'	83° 13'	-1 04	-0 23	*0.76	*0.76	1.0	1.4	0.7
4773	HAVANA	23° 08.9'	82° 20.2'	<i>Daily predictions, p. 248</i>				0.95	--	--
4775	Matanzas	23° 04'	81° 32'	-0 59	-0 59	*0.92	*0.92	1.2	1.5	0.8
4777	Cardenas	23° 04'	81° 12'	-0 11	+0 34	*1.08	*1.08	1.4	1.8	1.0
	JAMAICA			on Galveston, p.216						
4779	Port Morant	17° 53'	76° 20'	-7 45	-7 45	*0.57	*0.57	--	0.8	0.4
4781	Port Royal #	17° 56'	76° 51'	-7 07	-8 14	*0.50	*0.50	--	0.7	0.3
4783	Galleon Harbour	17° 54'	77° 04'	--	--	--	--	--	0.8	0.4
4785	South Negril Point #	18° 18'	78° 24'	-2 47	-2 47	*1.21	*1.21	--	1.7	0.8
4787	Montego Bay	18° 28'	77° 55'	-6 44	-6 40	*0.71	*0.71	--	1.0	0.5
4789	St. Anns Bay	18° 25'	77° 14'	-7 17	-7 17	*0.57	*0.57	--	0.8	0.4
4791	Grand Cayman #	19° 20'	81° 20'	-8 01	-8 01	*0.93	*0.93	--	1.3	0.6
	HAITI and DOMINICAN REPUBLIC			on San Juan, p.264						
4793	Port-au-Prince	18° 33'	72° 21'	-0 35	-0 38	*0.99	*0.99	--	1.6	0.8
4795	Massacre, Riviere du entrance	19° 43'	71° 46'	-1 04	-1 07	*1.44	*1.44	--	2.3	1.2
4797	Puerto Plata	19° 49'	70° 42'	-1 12	-1 20	*1.44	*1.44	--	2.3	1.2
4799	Santa Barbara de Samana	19° 12'	69° 20'	-0 54	-0 53	*1.25	*1.25	--	2.0	1.0
4801	Sanchez	19° 13'	69° 36'	-0 40	-0 43	*2.05	*2.05	--	3.3	1.6
				on Galveston, p.216						
4803	Saona, Isla #	18° 10'	68° 40'	--	--	--	--	--	0.6	0.3
4805	La Romana #	18° 25'	68° 57'	--	--	--	--	--	0.6	--
4807	Santo Domingo #	18° 27'	69° 53'	-6 28	-11 01	*0.57	*0.57	--	0.8	0.4
4809	Barahona #	18° 12'	71° 05'	--	--	--	--	--	0.7	0.3
4811	Jacmel #	18° 13'	72° 34'	-10 00	-10 00	*1.43	*1.43	--	2.0	1.0
	PUERTO RICO Time meridian, 60° W			on Magueyes, p.260						
4813	MAGUEYES ISLAND #	17° 58.3'	67° 02.8'	<i>Daily predictions</i>				0.65	0.67	0.34
4815	Guanica #	17° 58'	66° 55'	-1 22	+0 18	*1.00	*1.00	--	0.7	0.3
4817	Playa de Ponce #	17° 58'	66° 37'	-0 39	-0 13	*1.14	*1.14	--	0.8	0.4
4819	Playa Cortada #	17° 59'	66° 27'	+0 16	-0 37	*1.14	*1.14	--	0.8	0.4
4821	Arroyo #	17° 58'	66° 04'	+0 52	+0 13	*1.14	*1.14	--	0.8	0.4

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Diurnal	
				High Water	Low Water	High Water	Low Water			
	PUERTO RICO Time meridian, 60° W	North	West	h m	h m	ft	ft	ft	ft	ft
				on Magueyes, p.260						
4823	Puerto Maunabo #	18° 00'	65° 53'	-0 56	+1 13	*1.00	*1.00	--	0.7	0.4
4825	Culebrita, Isla #	18° 19'	65° 14'	-2 34	+2 40	*1.57	*1.57	--	1.1	0.6
4827	Puerto Ferro, Isla de Vieques #	18° 06'	65° 26'	-2 26	+3 01	*1.14	*1.14	--	0.8	0.4
				on San Juan, p.264						
4829	Punta Mulas, Isla de Vieques	18° 09'	65° 26'	-0 14	-0 17	*0.72	*0.72	--	1.2	0.6
4831	Roosevelt Roads	18° 14'	65° 37'	+0 02	+0 20	*0.63	*0.63	--	1.0	0.5
4833	Ensenada Honda, Culebra Island	18° 18'	65° 17'	-0 34	-0 15	*0.63	*0.63	--	1.0	0.5
4835	Culebra	18° 18.05'	65° 18.15'	-0 19	+0 08	*0.72	*0.73	0.78	1.14	0.55
4837	Playa de Fajardo	18° 20'	65° 38'	-0 10	-0 13	*0.99	*0.99	--	1.6	0.8
4839	SAN JUAN	18° 27.5'	66° 07.0'			<i>Daily predictions</i>		1.10	1.58	0.76
4841	Mayaguez	18° 13.2'	67° 09.6'	-0 09	-0 11	*0.93	*0.76	1.06	1.40	0.69
4843	Puerto Real	18° 05'	67° 11'	-0 33	-0 26	*0.72	*0.72	--	1.2	0.6
	LESSER ANTILLES & VIRGIN ISLANDS					on Charlotte Amalie, p.268				
	<i>St. Thomas Island</i>									
4845	Botany Bay #	18° 21.8'	65° 02.1'	+0 01	-0 17	*1.39	*1.39	0.90	1.28	0.58
4847	Dorothea Bay, Ruy Point #	18° 22.2'	64° 57.8'	+0 03	-0 17	*1.41	*1.41	0.93	1.29	0.58
4849	Magens Bay #	18° 22'	64° 55'	-0 06	-0 17	*1.59	*1.59	1.0	1.4	0.7
4851	Water Bay #	18° 20.9'	64° 51.8'	-0 11	-0 14	*1.30	*1.30	0.81	1.19	0.56
4853	Redhook Bay #	18° 19.1'	64° 51.1'	-0 46	+0 44	*1.28	*1.28	0.82	1.09	0.54
4855	CHARLOTTE AMALIE #	18° 20.1'	64° 55.2'			<i>Daily predictions</i>		0.70	0.79	0.40
4857	Dog Island #	18° 17.8'	64° 49.0'	-0 09	+0 06	*0.97	*0.97	0.63	0.80	0.40
	<i>St. Johns Island</i>									
4859	Lovango Cay #	18° 21.6'	64° 48.2'	-0 27	-0 31	*1.13	*1.13	0.61	1.06	0.49
4861	Leinster Point #	18° 22.0'	64° 43.2'	-0 12	-0 20	*1.22	*1.22	0.90	1.12	0.51
4863	Coral Harbor #	18° 20.9'	64° 43.0'	-0 13	-0 13	*1.08	*1.08	0.72	0.90	0.44
4865	Lameshur Bay #	18° 19.0'	64° 43.4'	-0 04	-0 06	*1.04	*1.14	0.72	0.82	0.41
						on Lime Tree Bay, p.272				
4867	Christiansted Harbor #	17° 45.0'	64° 42.3'	-1 37	+0 23	*1.03	*1.03	0.69	0.73	0.37
4869	LIME TREE BAY, ST.CROIX ISLAND #	17° 41.8'	64° 45.2'			<i>Daily predictions</i>		0.69	0.71	0.36
4871	Fredericksted #	17° 42.8'	64° 53.0'	-0 14	+0 59	*1.01	*1.00	0.70	0.73	0.36
4873	St. Barthelémy #	17° 54'	62° 51'	-3 26	-1 11	*1.87	*1.00	--	1.4	0.7
4875	Pointe-a-Pitre, Guadeloupe	16° 14'	61° 32'	-4 28	-0 33	*3.24	*1.80	--	1.0	0.5
						on Key West, p.172				
4877	Roseau, Dominica	15° 18'	61° 24'	-6 29	-6 05	*0.65	*0.65	0.7	1.2	0.6
4879	Fort-de-France, Martinique	14° 35'	61° 03'	-6 55	-6 18	*0.38	*0.38	0.5	--	0.5
4881	Castries, St. Lucia	14° 01'	61° 00'	-7 09	-7 05	*0.62	*0.62	0.8	1.2	0.6
4883	Vieux Fort Bay, St. Lucia	13° 44'	60° 58'	-6 02	-5 38	*0.69	*0.69	0.9	--	0.7
4885	Kingstown, St. Vincent <13>	13° 10'	61° 13'	-7 09	-6 38	*1.53	*1.53	2.0	2.7	1.4
4887	Bridgetown, Barbados	13° 06'	59° 38'	-6 28	-5 47	*1.30	*1.30	1.7	2.1	1.0
4889	Grenada	12° 04'	61° 45'	-7 26	-6 51	*0.92	*0.92	1.2	1.5	0.8
4891	Scarborough, Tobago	11° 11'	60° 44'	-6 40	-6 22	*1.60	*1.60	2.1	2.7	1.4
						on Cristobal, p.232				
4893	Schottogat, Curacao #	12° 07'	68° 56'	+0 25	+1 09	*0.82	*0.82	--	0.9	0.5
4895	St. Nicolaas Bay, Aruba #	12° 26'	69° 54'	--	--	--	--	--	0.8	0.4
	COLOMBIA <13> Time meridian, 75° W					on Hampton Roads, p.120				
4897	Isla de Providencia	13° 20'	81° 23'	+7 53	+7 53	*0.28	*0.28	0.7	1.1	0.4
						on Cristobal, p.232				
4899	Turbo	8° 10'	76° 45'	-0 49	-0 30	*1.43	*1.43	1.0	1.4	0.6
4901	Covenas	9° 20'	75° 40'	-1 06	-0 46	*1.14	*1.14	0.8	1.2	0.5
4903	Cartagena, Bahía de Cartagena	10° 24'	75° 33'	-1 16	-0 48	*1.00	*1.00	0.7	1.1	0.4
4905	Puerto Colombia	11° 00'	74° 58'	-0 52	-1 08	*1.29	*1.29	0.9	1.3	0.5
4907	Santa Marta	11° 18'	74° 12'	-1 19	-1 08	*1.00	*1.00	0.7	1.1	0.4
4909	Riohacha	11° 33'	72° 55'	-1 54	-1 09	*1.00	*1.00	0.7	1.1	0.4
	VENEZUELA Time meridian, 60° 30' W					on Isla Zapara, p.276				
4911	ISLA ZAPARA, Lake Maracaibo	11° 00'	71° 35'			<i>Daily predictions</i>		2.8	3.0	2.7
4913	Bahia de Tablazos, Lake Maracaibo	10° 53'	71° 35'	+0 30	+0 11	*0.61	*0.31	2.1	2.3	1.5
4915	Punta de Palmas	10° 48'	71° 37'	+0 35	+0 16	*0.49	*0.31	1.6	1.8	1.2
						on Amuay, p.280				
4917	AMUAY	11° 45'	70° 13'			<i>Daily predictions</i>		--	1.2	0.6
4919	La Guaira #	10° 36'	66° 56'	-2 29	-1 59	+0.8	+1.0	--	1.0	1.5
4921	Carenero #	10° 32'	66° 07'	-1 51	-1 59	+0.8	+1.0	--	1.0	1.5
4923	Cumana #	10° 28'	64° 11'	-2 37	-1 02	-0.1	0.0	--	1.1	0.5
4925	Porlamar, Isla de Margarita #	10° 57'	63° 51'	-1 19	-0 59	+0.6	0.0	--	1.8	0.9
4927	Carupano #	10° 40'	63° 15'	-1 17	-0 42	+0.2	0.0	--	1.4	0.7

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
VENEZUELA Time meridian, 60° 30' W		North	West	h	m	h	m	ft	ft	ft
				on Punta Gorda, p.284						
4929	Gulf of Paria									
	Macuro	10° 39'	61° 56'	-1 15	-2 05	*0.38	*0.38	2.2	2.7	1.4
4931	Puerto de Hierro	10° 37'	62° 05'	-0 46	-1 19	*0.59	*0.59	3.3	4.2	2.0
4933	Barra de Maturin, channel entrance	10° 18'	62° 31'	-0 22	-0 45	-1.0	+0.2	4.6	5.7	2.8
4935	PUNTA GORDA, Rio San Juan	10° 10'	62° 38'	Daily predictions				5.8	7.1	3.2
4937	Boca Pedernales entrance	10° 01'	62° 12'	-0 03	-0 34	-1.3	+0.2	4.3	5.4	2.6
4939	Rio Orinoco entrance, Isla Ramon Isidro	8° 39'	60° 35'	+0 07	-0 12	+0.2	+1.0	5.0	6.7	3.8
TRINIDAD Time meridian, 60° W										
4941	Stables Bay	10° 41'	61° 39'	-0 37	-1 32	(*0.33+1.7)		1.9	2.5	2.8
4943	Carenage Bay	10° 41'	61° 36'	-0 28	-1 10	(*0.34+1.6)		2.0	2.6	2.7
4945	Port of Spain	10° 39'	61° 31'	-0 14	-0 42	(*0.31+1.4)		1.8	2.3	2.4
4947	Bonasse pier	10° 05'	61° 52'	-0 13	-0 45	-1.0	+1.4	3.4	4.4	3.4
4949	Erin Bay	10° 04'	61° 39'	-0 20	-1 11	-0.3	+1.2	4.3	5.6	3.6
4951	Guayaguayare Bay	10° 09'	61° 01'	-1 02	-1 39	(*0.53+1.3)		3.1	3.8	3.0
4953	Nariva River	10° 24'	61° 02'	-0 36	-1 46	(*0.41+1.3)		2.4	3.1	2.5
GUYANA Time meridian, 56° 15' W										
				on Suriname Rivier, p.288						
4955	Parika, Essequibo River	6° 52'	58° 25'	+0 07	+0 31	+1.6	+1.0	6.6	8.3	5.6
4957	Georgetown	6° 48'	58° 10'	-0 13	-0 29	+0.9	+1.1	5.8	8.0	5.3
SURINAM Time meridian, 45° W										
4959	Nickerie River	5° 57'	56° 59'	+0 09	+0 21	+1.1	0.0	7.1	9.2	4.9
4961	SURINAME RIVIER ENTRANCE	6° 00'	55° 14'	Daily predictions				6.0	7.6	4.3
4963	Pparamaribo, Suriname Rivier	5° 49'	55° 09'	+1 09	+1 42	0.0	0.0	6.0	7.3	4.3
FRENCH GUIANA Time meridian, 60° W										
4965	Rio Maroni entrance	5° 45'	53° 58'	+0 18	+0 24	+0.7	+1.2	5.5	7.2	5.2
4967	Iles du Salut	5° 17'	52° 35'	-0 07	-0 07	+1.7	+2.2	5.5	7.2	6.2
4969	Cayenne	4° 56'	52° 20'	+0 15	+0 15	+2.4	+1.8	6.6	7.8	6.4
BRAZIL <16> Time meridian, 45° W										
4971	Cape Cassipore	3° 49'	51° 01'	+1 24	+1 19	+1.5	+0.3	7.2	9.5	5.2
4973	Rio Cunani entrance	2° 50'	50° 53'	+2 10	+2 24	(*2.42-0.2)		14.5	19.0	10.1
South West										
4975	Ilha de Maraca anchorage	2° 09'	50° 30'	+1 40	+1 52	(*2.42-0.2)		14.5	19.0	10.1
4977	Ilha do Brigue, Amazon River	0° 55'	50° 05'	+7 09	+7 40	+8.3	+1.1	13.2	15.7	9.0
4979	Ponta Pedreira, Amazon River	0° 11'	50° 43'	+6 31	+6 43	*2.08	*2.23	12.3	16.2	9.0
4981	Macapa, Amazon River	0° 03'	51° 11'	+10 57	+12 13	+2.8	+0.4	8.4	9.5	5.9
4983	Canal de Braganca, Rio Para entrance	0° 23'	47° 55'	+6 09	+6 09	+1.8	-0.1	7.9	10.4	5.1
4985	Salinopolis	0° 39'	47° 23'	+2 38	+2 52	*1.99	*1.54	12.5	15.9	8.3
4987	Belem (Para)	1° 27'	48° 30'	+6 34	+7 37	+2.9	+0.7	8.2	10.1	6.1
4989	Ilhas de Sao Joao	1° 17'	44° 55'	+1 31	+1 31	*1.70	*1.31	10.7	14.1	7.0
4991	Sao Luiz	2° 32'	44° 18'	+2 28	+2 25	(*2.35-0.7)		14.1	17.1	9.3
4993	Santana, Recifes de	2° 16'	43° 36'	+0 46	+0 45	*1.58	*1.15	10.0	13.1	6.5
4995	Tutoia, Baia da	2° 46'	42° 14'	+0 11	+0 10	+2.4	+0.4	8.0	10.0	5.7
4997	Luis Correia	2° 53'	41° 40'	+0 01	+0 13	+1.8	+0.4	7.4	9.4	5.4
4999	Camocim	2° 53'	40° 52'	+1 07	+1 06	+2.0	+0.4	7.6	9.7	5.5
5001	Rio Ceara (bar)	3° 41'	38° 37'	-0 13	-0 21	+0.2	-0.1	6.3	8.3	4.3
5003	Fortaleza	3° 43'	38° 29'	-0 08	-0 12	+0.2	-0.3	6.5	8.5	4.2
Time meridian, 30° W										
				on Recife, p.292						
5005	Fernando de Noronha	3° 50'	32° 25'	+1 32	+1 33	-1.2	-0.5	4.5	6.0	2.9
5007	Rocas, Atol das	3° 51'	33° 49'	+1 43	+1 44	+2.3	0.0	7.5	10.0	4.9
Time meridian, 45° W										
5009	Macau, Rio Acu	5° 06'	36° 41'	+1 29	+1 58	+0.6	-0.1	5.9	7.6	4.1
5011	Natal	5° 47'	35° 12'	+0 28	+0 30	+0.1	-0.2	5.5	7.3	3.7
5013	Cabedelo	6° 58'	34° 50'	+0 36	+0 37	+0.1	-0.2	5.5	7.2	3.7
5015	Tambau	7° 06'	34° 50'	-0 04	-0 03	+0.7	-0.1	6.0	7.6	4.1
5017	RECIFE	8° 03'	34° 52'	Daily predictions				5.3	7.1	3.8
5019	Maceio	9° 40'	35° 43'	+0 10	+0 14	-0.3	-0.2	5.1	6.8	3.6
5021	Rio Sao Francisco (bar)	10° 31'	36° 24'	+0 06	+0 14	-0.7	0.0	4.5	6.0	3.5
5023	Aracaju	10° 56'	37° 03'	+0 33	+0 48	-0.8	-0.3	4.7	6.1	3.3
5025	Salvador	12° 58'	38° 31'	-0 02	-0 08	+0.6	+0.4	5.5	7.4	4.3
5027	Ponta da Areia	12° 47'	38° 30'	+0 10	+0 06	+0.6	-0.1	5.9	7.6	4.0
5029	Morro de Sao Paulo	13° 21'	38° 54'	-0 11	-0 13	-0.6	0.0	4.6	6.0	3.5
5031	Camamu	13° 54'	38° 58'	-0 08	-0 04	-0.2	+0.1	4.9	6.5	3.8
5033	Ilheus	14° 48'	39° 02'	-0 33	-0 32	-0.9	-0.3	4.6	5.8	3.2
5035	Canaveiras	15° 40'	38° 56'	+0 16	+0 22	-1.0	-0.2	4.5	5.8	3.1
5037	Santa Cruz Cabralia	16° 17'	39° 02'	-0 35	-0 35	-1.2	-0.5	4.5	6.0	2.9
5039	Cumuruxatiba	17° 06'	39° 11'	-0 23	-0 09	+0.4	+0.3	5.3	7.2	4.2
5041	Caravelas	17° 43'	39° 09'	-0 50	-0 49	-0.8	-0.5	4.9	6.4	3.1

Endnotes can be found at the end of table 2.

TABLE 2. – TIDAL DIFFERENCES AND OTHER CONSTANTS

No.	PLACE	POSITION		DIFFERENCES				RANGES		Mean Tide Level
		Latitude	Longitude	Time		Height		Mean	Spring	
				High Water	Low Water	High Water	Low Water			
	ARGENTINA Time meridian, 45° W	South	West	h m	h m	ft	ft	ft	ft	ft
				on Comodoro Rivadavia, p.312						
	<i>Golfo San Jorge</i>									
5173	Caleta Leones	45° 03'	65° 37'	+1 11	+1 05	-0.7	-0.2	13.4	14.7	9.8
5175	Bahia Gil (Caleta Horno)	45° 02'	65° 41'	+0 42	+0 36	-1.7	+0.3	11.9	14.1	9.6
5177	Puerto Melo	45° 01'	65° 50'	+0 27	+0 24	-1.5	+0.1	12.3	14.6	9.6
5179	Isla Tova	45° 06'	65° 59'	+0 27	+0 24	-1.5	+0.1	12.3	14.6	9.6
5181	Bahia Bustamante	45° 07'	66° 32'	+0 28	+0 23	-0.8	+0.7	12.4	14.7	10.2
5183	COMODORO RIVADAVIA	45° 52'	67° 29'					14.0	16.3	10.3
5185	Cabo Blanco	47° 12'	65° 45'	-1 15	-1 20	-2.3	-0.3	11.9	13.2	9.0
5187	Puerto Deseado	47° 45'	65° 55'	-2 52	-2 44	-0.6	+1.0	12.4	14.5	10.5
5189	Bahia Oso Marino	47° 56'	65° 48'	-3 35	-3 40	-1.2	+1.2	11.5	14.1	10.3
5191	Bahia de los Nodales	48° 01'	65° 57'	-3 01	-3 06	-1.2	+0.1	12.6	15.3	9.7
5193	Bahia Laura	48° 23'	66° 29'	-5 28	-5 28	+6.7	-1.9	22.5	25.4	12.7
5195	Bahia San Julian (Punta Pena)	49° 15'	67° 40'	-4 58	-5 04	(*1.40-1.4)		19.5	23.6	13.0
				on Punta Loyola, p.316						
5197	Santa Cruz (Punta Quilla)	50° 07'	68° 25'	+0 43	+0 44	+0.2	+0.1	26.0	32.4	20.4
5199	Ria Coig	50° 57'	69° 10'	-0 05	-0 04	0.0	-0.7	26.6	32.2	19.9
5201	PUNTA LOYOLA	51° 36'	69° 01'					25.9	32.4	20.3
5203	Rio Gallegos (Reduccion Beacon)	51° 37'	69° 13'	+0 21	+0 30	+4.2	+1.1	29.0	36.2	22.9
5205	Cabo Virgenes	52° 21'	68° 22'	-0 36	-0 55	-2.1	0.0	23.8	29.8	19.2
	Tierra del Fuego <19>			on Comodoro Rivadavia, p.312						
5207	Bahia San Sebastian	53° 10'	68° 30'	-7 50	-7 55	*1.69	*1.91	22.8	28.6	17.7
5209	Rio Grande (Muelle)	53° 48'	67° 41'	-7 50	-7 55	*1.15	*1.18	15.8	19.2	11.8
5211	Cabo San Pablo	54° 17'	66° 42'	-8 48	-8 53	*1.17	*1.27	16.0	19.3	12.2
				on Puerto Ingeniero White, p.308						
5213	Bahia Thetis	54° 38'	65° 15'	+1 00	+1 07	-2.0	-0.6	8.7	10.6	7.2
	SOUTH ATLANTIC OCEAN ISLANDS Time meridian, 60° W			on Pictou, p.8						
	<i>Falkland Islands</i>									
5215	Port Louis (Berkeley Sound)	51° 33'	58° 09'	+7 50	+7 47	-0.9	-1.0	3.3	4.2	3.0
5217	Stanley Harbor	51° 42'	57° 51'	+7 51	+7 48	-1.0	-1.0	3.2	4.2	2.9
	<i>South Georgia</i>									
5219	Royal Bay (Moltke Harbor)	54° 31'	36° 01'	+9 58	+10 19	*0.36	*0.13	1.7	2.3	1.2
5221	Leith Harbor	54° 08'	36° 41'	+9 15	+9 35	*0.64	*0.65	2.0	2.7	2.5
	Time meridian, local									
	<i>South Orkneys</i>									
5223	Scotia Bay, Laurie Island	60° 44'	44° 39'	+8 21	+8 32	-0.3	-0.6	3.5	5.0	3.5
	<i>South Shetlands</i>									
5225	Port Foster, Deception Island	62° 58'	60° 34'	+8 26	+8 38	0.0	-0.1	3.3	4.3	3.9
	Time meridian, 45° W									
5227	Admiralty Bay	62° 03'	58° 24'	+9 49	+10 05	-0.5	-0.4	3.1	4.4	3.5

Endnotes can be found at the end of table 2.

ENDNOTES

* RATIO. If the ratio is accompanied by a correction factor multiply the heights of the high and low waters at the reference station by the ratio and then apply the correction factor.

- # The tide at this location is chiefly diurnal. SEE CAUTION NOTE.
- <1> Neap low water falls lower than spring low water.
- <2> Wharves are dry at low water.
- <3> There is a bore in the Petitcodiac River. It arrives at Moncton about 1h 38m before high water at St. John: its height is about 3 to 3 1/2 feet on average spring tides, but it sometimes exceeds 5 feet on highest tides. On small tides it is not much more than a large ripple.
- <4> The Reversing Falls at St. John—The most turbulence in the gorge occurs on days when the tides are largest. On largest tides the outward fall is between 15 and 16 1/2 feet and is accompanied by a greater turbulence than the inward fall which is between 11 and 12 1/2 feet. The outward fall is at its greatest between 2 hours before and 1 hour after low water at St John: the inward fall is greater just before the time of high water.
- <5> For Eastern Standard, time subtract one hour from the predictions obtained using these differences.
- <6> Low water time difference is +2h 47m. SEE CAUTION NOTE ON PAGE FOLLOWING LISTING.
- <8> Values for the Hudson River above the George Washington Bridge are based upon averages for the six months May to October, when the freshwater discharge is at a minimum.
- <9> In Albermarle and Pamlico Sounds, except near the inlets, the periodic tide has a mean range of less than 0.5 foot.
- <11> In Choctawhatchee and Perdido Bays the periodic tide has a mean range of less than 0.5 foot.
- <12> At New Orleans the diurnal range of the tide during low river stages averages 0.8 foot. There is no periodic tide at high river stages.
- <13> For places on the Pacific coast, see "Tide Tables, West Coast of North and South America."
- <15> Spring range is given instead of diurnal range.
- <16> A "Pororoca", a bore, reported to vary from 5 to 15 feet at spring tides, occurs in the Araguay, Guama and Guajara Rivers.
- <17> Predictions will be approximate.
- <18> Diurnal range is given instead of spring range.
- <19> For places in Magellan Strait, on the south coast of Tierra del Fuego and on the Pacific coast, see "Tide Tables, West Coast of North and South America."
- <20> The time differences should be applied only to the higher high and the lower low water times of the reference station.
- <21> From Oak Hill southward in Mosquito Lagoon the periodic tide is negligible.
- <22> In Indian River north of Palm Bay, in Banana River and in Banana Creek, the periodic tides are negligible.
- <24> The periodic tide is negligible, at this location and above.
- <26> The periodic range of the tide is negligible at this location.
- <27> The periodic range of the tide is negligible inside Sugarloaf Sound.

TABLE 3.—HEIGHT OF TIDE AT ANY TIME

EXPLANATION OF TABLE

Although the footnote of Table 3 may contain sufficient explanation for finding the height of tide at any time, two examples are given here to illustrate its use.

Example 1.—Find the height of the tide at 0755 at New York (The Battery), N.Y., on a day when the predicted tides from Table 1 are given as:

<i>Low Water</i>		<i>High Water</i>	
<i>Time</i>	<i>Height</i>	<i>Time</i>	<i>Height</i>
<i>h.m.</i>	<i>ft</i>	<i>h.m.</i>	<i>ft</i>
0522	0.1	1114	4.2
1741	0.6	2310	4.1

An inspection of the above example shows that the desired time falls between the two morning tides

The duration of rise is $11^{\text{h}} 14^{\text{m}} - 5^{\text{h}} 22^{\text{m}} = 5^{\text{h}} 52^{\text{m}}$.

The time after low water for which the height is required is $7^{\text{h}} 55^{\text{m}} - 5^{\text{h}} 22^{\text{m}} = 2^{\text{h}} 33^{\text{m}}$.

The range of tide is $4.2 - 0.1 = 4.1$ feet.

The duration of rise or fall in Table 3 is given in heavy-faced type for each 20 minutes from $4^{\text{h}} 10^{\text{m}}$ to $10^{\text{h}} 40^{\text{m}}$. The nearest tabular value to $5^{\text{h}} 52^{\text{m}}$, the above duration of rise, is $6^{\text{h}} 00^{\text{m}}$; and on the horizontal line of $6^{\text{h}} 00^{\text{m}}$, the nearest tabular time to $2^{\text{h}} 33^{\text{m}}$ after low water for which the height is required is $2^{\text{h}} 36^{\text{m}}$. Following down the column in which this $2^{\text{h}} 36^{\text{m}}$ is found to its intersection with the line of the range 4.0 feet (the nearest tabular value to the above range of 4.1 feet), the correction is found to be 1.6 feet, which being reckoned from low water, must be added, making $0.1 + 1.6 = 1.7$ feet or 52 centimeters which is the required height above mean lower low water, the datum for New York.

Example 2. —Find the height of the tide at 0300 at Somewhere, U.S.A. on a day when the predicted tides are given as:

<i>High Water</i>		<i>Low Water</i>	
<i>Time</i>	<i>Height</i>	<i>Time</i>	<i>Height</i>
<i>h.m.</i>	<i>ft</i>	<i>h.m.</i>	<i>ft</i>
0012	11.3	0638	-2.0
1251	11.0	1853	-0.8

The duration of fall is $6^{\text{h}} 38^{\text{m}} - 00^{\text{h}} 12^{\text{m}} = 6^{\text{h}} 26^{\text{m}}$.

The time after high water for which the height is required is $3^{\text{h}} 00^{\text{m}} - 00^{\text{h}} 12^{\text{m}} = 2^{\text{h}} 48^{\text{m}}$.

The range of tide is $11.3 - (-2.0) = 13.3$ feet.

Entering Table 3 at the duration of fall of $6^{\text{h}} 20^{\text{m}}$, which is the nearest value to $6^{\text{h}} 26^{\text{m}}$, the nearest value on the horizontal line to $2^{\text{h}} 48^{\text{m}}$ is $2^{\text{h}} 45^{\text{m}}$ after high water. Follow down this column to its intersection with a range of 13.5 feet which is the nearest tabular value to 13.3 feet, one obtains 5.3 which, being calculated from high water, must be subtracted from it. The approximate height at $03^{\text{h}} 00^{\text{m}}$ is, therefore, $11.3 - 5.3 = 6.0$ feet or 183 centimeters.

When the duration of rise or fall is greater than $10^{\text{h}} 40^{\text{m}}$, enter the table with one-half the given duration and with one-half the time from the nearest high or low water; but if the duration of rise or fall is less than 4 hours, enter the table with double the given duration and with double the time from the nearest high or low water.

Similarly, when the range of tide is greater than 20 feet, enter the table with one-half the given range. The tabular correction should then be doubled before applying it to the given high or low water

TABLE 3.—HEIGHT OF TIDE AT ANY TIME

height. If the range of tide is greater than 40 feet, take one-third of the range and multiply the tabular correction by 3.

If the height at any time is desired for a place listed in Table 2 predictions of the high and low waters for the day in question should be obtained by the use of the difference given for the place in that table. Having obtained these predictions, the height for any intermediate time is obtained in the same manner as illustrated in the foregoing example.

GRAPHIC METHOD

If the height of the tide is required for a number of times on a certain day the full tide curve for the day may be obtained by the *one-quarter, one-tenth rule*. The procedure is as follows:

1. On cross-section paper plot the high and low water points in the order of their occurrence for the day, measuring time horizontally and height vertically. These are the basic points for the curve.

2. Draw light straight lines connecting the points representing successive high and low waters.

3. Divide each of these straight lines into four equal parts. The halfway point of each line gives another point for the curve.

4. At the quarter point adjacent to high water draw a vertical line above the point and at the quarter point adjacent to low water draw a vertical line below the point, making the length of these lines equal to one-tenth of the range between the high and low waters used. The points marking the ends of these vertical lines give two additional intermediate points for the curve.

5. Draw a smooth curve through the points of high and low waters and the intermediate points, making the curve well rounded near high and low waters. This curve will approximate the actual tide curve and heights for any time of the day may be readily scaled from it.

Caution.—Both methods presented are based on the assumption that the rise and fall conform to simple cosine curves. Therefore, the heights obtained will be approximate. The roughness of approximation will vary as the tide curve differs from a cosine curve.

An example of the use of the graphical method is illustrated below. Using the same predicted tides as in example 2, the approximate height at 3^h 00^m could be determined as shown below.

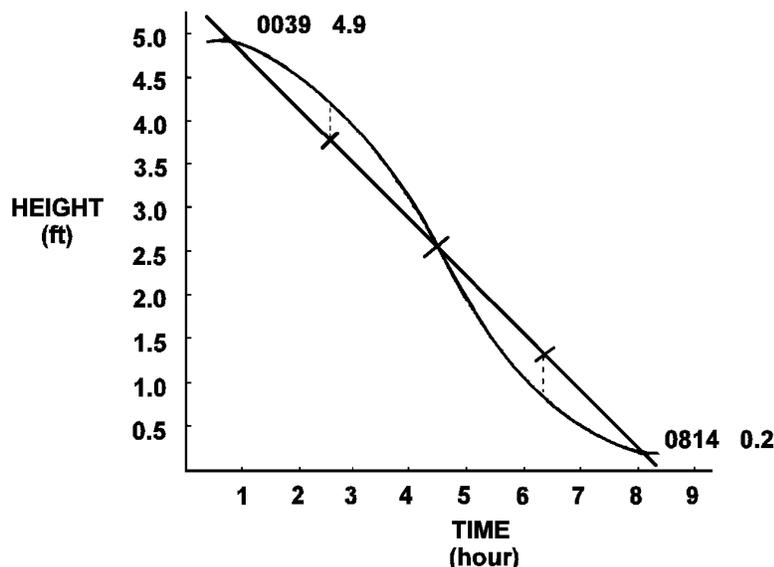


TABLE 3.—HEIGHT OF TIDE AT ANY TIME

<i>h. m.</i> 4 10 4 20 4 40	Time from the nearest high water or low water														
	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>	<i>h. m.</i>
5 00	0 10	0 20	0 30	0 40	0 50	1 00	1 10	1 20	1 30	1 40	1 50	2 00	2 10	2 20	2 30
5 20	0 11	0 21	0 32	0 43	0 53	1 04	1 15	1 25	1 36	1 47	1 57	2 08	2 19	2 29	2 40
5 40	0 11	0 23	0 34	0 45	0 57	1 08	1 19	1 31	1 42	1 53	2 05	2 16	2 27	2 39	2 50
6 00	0 12	0 24	0 36	0 48	1 00	1 12	1 24	1 36	1 48	2 00	2 12	2 24	2 36	2 48	3 00
6 20	0 13	0 25	0 38	0 51	1 03	1 16	1 29	1 41	1 54	2 07	2 19	2 32	2 45	2 57	3 10
6 40	0 13	0 27	0 40	0 53	1 07	1 20	1 33	1 47	2 00	2 13	2 27	2 40	2 53	3 07	3 20
7 00	0 14	0 28	0 42	0 56	1 10	1 24	1 38	1 52	2 06	2 20	2 34	2 48	3 02	3 16	3 30
7 20	0 15	0 29	0 44	0 59	1 13	1 28	1 43	1 57	2 12	2 27	2 41	2 56	3 11	3 25	3 40
7 40	0 15	0 31	0 46	1 01	1 17	1 32	1 47	2 03	2 18	2 33	2 49	3 04	3 19	3 35	3 50
8 00	0 16	0 32	0 48	1 04	1 20	1 36	1 52	2 08	2 24	2 40	2 56	3 12	3 28	3 44	4 00
8 20	0 17	0 33	0 50	1 07	1 23	1 40	1 57	2 13	2 30	2 47	3 03	3 20	3 37	3 53	4 10
8 40	0 17	0 35	0 52	1 09	1 27	1 44	2 01	2 19	2 36	2 53	3 11	3 28	3 45	4 03	4 20
9 00	0 18	0 36	0 54	1 12	1 30	1 48	2 06	2 24	2 42	3 00	3 18	3 36	3 54	4 12	4 30
9 20	0 19	0 37	0 56	1 15	1 33	1 52	2 11	2 29	2 48	3 07	3 25	3 44	4 03	4 21	4 40
9 40	0 19	0 39	0 58	1 17	1 37	1 56	2 15	2 35	2 54	3 13	3 33	3 52	4 11	4 31	4 50
10 00	0 20	0 40	1 00	1 20	1 40	2 00	2 20	2 40	3 00	3 20	3 40	4 00	4 20	4 40	5 00
10 20	0 21	0 41	1 02	1 23	1 43	2 04	2 25	2 45	3 06	3 27	3 47	4 08	4 29	4 49	5 10
10 40	0 21	0 43	1 04	1 25	1 47	2 08	2 29	2 51	3 12	3 33	3 55	4 16	4 37	4 59	5 20
<i>Ft.</i> 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0 9.5 10.0 10.5 11.0 11.5 12.0 12.5 13.0 13.5 14.0 14.5 15.0 15.5 16.0 16.5 17.0 17.5 18.0 18.5 19.0 19.5 20.0	Correction to height														
	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>	<i>Ft.</i>
0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
1.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4
1.5	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.5	0.6	0.7
2.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.8	0.9
2.5	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.7	0.9	1.0	1.1	1.2
3.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.8	0.9	1.0	1.2	1.3	1.5
3.5	0.0	0.0	0.1	0.2	0.2	0.3	0.4	0.6	0.7	0.9	1.0	1.2	1.4	1.6	1.8
4.0	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.7	0.8	1.0	1.2	1.4	1.6	1.8	2.0
4.5	0.0	0.0	0.1	0.2	0.3	0.4	0.6	0.7	0.9	1.1	1.3	1.6	1.8	2.0	2.2
5.0	0.0	0.1	0.1	0.2	0.3	0.5	0.6	0.8	1.0	1.2	1.5	1.7	2.0	2.2	2.5
5.5	0.0	0.1	0.1	0.2	0.4	0.5	0.7	0.9	1.1	1.4	1.6	1.9	2.2	2.5	2.8
6.0	0.0	0.1	0.1	0.3	0.4	0.6	0.8	1.0	1.2	1.5	1.8	2.1	2.4	2.7	3.0
6.5	0.0	0.1	0.2	0.3	0.4	0.6	0.8	1.1	1.3	1.6	1.9	2.2	2.6	2.9	3.2
7.0	0.0	0.1	0.2	0.3	0.5	0.7	0.9	1.2	1.4	1.8	2.1	2.4	2.8	3.1	3.5
7.5	0.0	0.1	0.2	0.3	0.5	0.7	1.0	1.2	1.5	1.9	2.2	2.6	3.0	3.4	3.8
8.0	0.0	0.1	0.2	0.3	0.5	0.8	1.0	1.3	1.6	2.0	2.4	2.8	3.2	3.6	4.0
8.5	0.0	0.1	0.2	0.4	0.6	0.8	1.1	1.4	1.8	2.1	2.5	2.9	3.4	3.8	4.2
9.0	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.5	1.9	2.2	2.7	3.1	3.6	4.0	4.5
9.5	0.0	0.1	0.2	0.4	0.6	0.9	1.2	1.6	2.0	2.4	2.8	3.3	3.8	4.3	4.8
10.0	0.0	0.1	0.2	0.4	0.7	1.0	1.3	1.7	2.1	2.5	3.0	3.5	4.0	4.5	5.0
10.5	0.0	0.1	0.3	0.5	0.7	1.0	1.3	1.7	2.2	2.6	3.1	3.6	4.2	4.7	5.2
11.0	0.0	0.1	0.3	0.5	0.7	1.1	1.4	1.7	2.3	2.8	3.3	3.8	4.4	4.9	5.5
11.5	0.0	0.1	0.3	0.5	0.8	1.1	1.5	1.8	2.3	2.9	3.4	4.0	4.6	5.1	5.8
12.0	0.0	0.1	0.3	0.5	0.8	1.1	1.5	1.9	2.5	3.0	3.6	4.1	4.8	5.4	6.0
12.5	0.0	0.1	0.3	0.5	0.8	1.2	1.6	1.9	2.6	3.1	3.7	4.3	5.0	5.6	6.2
13.0	0.0	0.1	0.3	0.6	0.9	1.2	1.7	2.2	2.7	3.2	3.9	4.5	5.1	5.8	6.5
13.5	0.0	0.1	0.3	0.6	0.9	1.3	1.7	2.2	2.8	3.4	4.0	4.7	5.3	6.0	6.8
14.0	0.0	0.2	0.3	0.6	0.9	1.3	1.8	2.3	2.9	3.5	4.2	4.8	5.5	6.3	7.0
14.5	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.4	3.0	3.6	4.3	5.0	5.7	6.5	7.2
15.0	0.0	0.2	0.4	0.6	1.0	1.4	1.9	2.5	3.1	3.8	4.4	5.2	5.9	6.7	7.5
15.5	0.0	0.2	0.4	0.7	1.0	1.5	2.0	2.6	3.2	3.9	4.6	5.4	6.1	6.9	7.8
16.0	0.0	0.2	0.4	0.7	1.1	1.5	2.1	2.6	3.3	4.0	4.7	5.5	6.3	7.2	8.0
16.5	0.0	0.2	0.4	0.7	1.1	1.6	2.1	2.7	3.4	4.1	4.9	5.7	6.5	7.4	8.2
17.0	0.0	0.2	0.4	0.7	1.1	1.6	2.2	2.8	3.5	4.2	5.0	5.9	6.7	7.6	8.5
17.5	0.0	0.2	0.4	0.8	1.2	1.7	2.2	2.9	3.6	4.4	5.2	6.0	6.9	7.8	8.8
18.0	0.0	0.2	0.4	0.8	1.2	1.7	2.3	3.0	3.7	4.5	5.3	6.2	7.1	8.1	9.0
18.5	0.1	0.2	0.5	0.8	1.2	1.8	2.4	3.1	3.8	4.6	5.5	6.4	7.3	8.3	9.2
19.0	0.1	0.2	0.5	0.8	1.3	1.8	2.4	3.1	3.9	4.8	5.6	6.6	7.5	8.5	9.5
19.5	0.1	0.2	0.5	0.8	1.3	1.9	2.5	3.2	4.0	4.9	5.8	6.7	7.7	8.7	9.8
20.0	0.1	0.2	0.5	0.9	1.3	1.9	2.6	3.3	4.1	5.0	5.9	6.9	7.9	9.0	10.0

Obtain from the predictions the high water and low water, one of which is before and the other after the time for which the height is required. The difference between the times of occurrence of these tides is the duration of rise or fall, and the difference between their heights is the range of tide for the above table. Find the difference between the nearest high or low water and the time for which the height is required.

Enter the table with the duration of rise or fall, printed in heavy-faced type, which most nearly agrees with the actual value, and on that horizontal line find the time from the nearest high or low water which agrees most nearly with the corresponding actual difference. The correction sought is in the column directly below, on the line with the range of tide.

When the nearest tide is high water, subtract the correction.

When the nearest tide is low, add the correction.

TABLE 4.—LOCAL MEAN TIME OF SUNRISE AND SUNSET

EXPLANATION OF TABLE

This table gives the local mean time of the rising and setting of the Sun's upper limb for every fifth day of the year. The times were computed for the instant when the true zenith distance of the Sun's center is $90^{\circ} 50', 34'$ having been allowed for horizontal refraction and $16'$ for semidiameter. No allowance has been made for elevation of the observer.

Because of the sensible variations which may be made in the time of rising or setting of the Sun by a difference in elevation of the observer, and by changes in the refraction, any great refinement in the interpolation of intermediate dates or latitudes in this table is unnecessary.

The value obtained from Table 4 may be converted to standard time by means of Table 5, which follows it.

Date		0°		5° N.		10° N.		15° N.		20° N.		25° N.	
		Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set	Rise	Set
		h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.	h. m.				
Jan.	1	06 00	18 07	06 08	17 59	06 17	17 50	06 26	17 41	06 35	17 32	06 45	17 22
	6	06 02	18 09	06 10	18 01	06 19	17 53	06 27	17 44	06 36	17 35	06 46	17 25
	11	06 04	18 11	06 12	18 03	06 20	17 55	06 29	17 47	06 37	17 38	06 47	17 29
	16	06 06	18 13	06 14	18 06	06 21	17 58	06 29	17 50	06 38	17 41	06 47	17 33
	21	06 08	18 15	06 15	18 08	06 22	18 00	06 30	17 53	06 38	17 45	06 46	17 36
	26	06 09	18 16	06 16	18 09	06 23	18 02	06 30	17 55	06 37	17 48	06 45	17 40
	31	06 10	18 17	06 16	18 11	06 23	18 04	06 29	17 58	06 36	17 51	06 43	17 44
Feb.	5	06 10	18 17	06 16	18 12	06 22	18 06	06 28	18 00	06 34	17 54	06 41	17 47
	10	06 11	18 18	06 16	18 13	06 21	18 07	06 27	18 02	06 32	17 57	06 38	17 51
	15	06 11	18 18	06 15	18 13	06 20	18 09	06 25	18 04	06 30	17 59	06 35	17 54
	20	06 10	18 17	06 14	18 13	06 18	18 09	06 22	18 05	06 27	18 01	06 31	17 57
	25	06 10	18 16	06 13	18 13	06 16	18 10	06 20	18 07	06 23	18 03	06 27	18 00
Mar.	1	06 09	18 16	06 12	18 13	06 14	18 11	06 17	18 08	06 20	18 05	06 22	18 02
	6	06 08	18 14	06 10	18 13	06 12	18 11	06 14	18 09	06 16	18 07	06 18	18 05
	11	06 07	18 13	06 08	18 12	06 09	18 11	06 10	18 10	06 12	18 09	06 13	18 07
	16	06 05	18 12	06 06	18 11	06 06	18 11	06 07	18 10	06 07	18 09	06 08	18 10
	21	06 04	18 10	06 04	18 11	06 03	18 11	06 03	18 11	06 03	18 11	06 03	18 12
	26	06 02	18 09	06 01	18 10	06 01	18 11	06 00	18 12	05 59	18 13	05 57	18 14
	31	06 01	18 07	05 59	18 09	05 58	18 11	05 56	18 12	05 54	18 14	05 52	18 16
Apr.	5	05 59	18 06	05 57	18 08	05 55	18 10	05 52	18 13	05 50	18 16	05 47	18 18
	10	05 58	18 04	05 55	18 07	05 52	18 10	05 49	18 14	05 46	18 17	05 42	18 20
	15	05 57	18 03	05 53	18 07	05 49	18 11	05 46	18 14	05 42	18 18	05 38	18 23
	20	05 56	18 02	05 51	18 06	05 47	18 11	05 43	18 15	05 38	18 20	05 33	18 25
	25	05 55	18 01	05 50	18 06	05 45	18 11	05 40	18 16	05 35	18 22	05 29	18 27
	30	05 54	18 01	05 48	18 06	05 43	18 12	05 37	18 17	05 31	18 23	05 25	18 30
May.	5	05 53	18 00	05 47	18 06	05 41	18 12	05 35	18 19	05 28	18 25	05 21	18 32
	10	05 53	18 00	05 47	18 06	05 40	18 13	05 33	18 20	05 26	18 27	05 18	18 35
	15	05 53	18 00	05 46	18 07	05 39	18 14	05 32	18 21	05 24	18 29	05 16	18 37
	20	05 53	18 00	05 46	18 08	05 38	18 15	05 30	18 23	05 22	18 31	05 13	18 40
	25	05 53	18 01	05 46	18 08	05 38	18 16	05 30	18 25	05 21	18 33	05 12	18 43
	30	05 54	18 01	05 46	18 09	05 38	18 18	05 29	18 26	05 20	18 35	05 11	18 45
Jun.	4	05 55	18 02	05 46	18 10	05 38	18 19	05 29	18 28	05 20	18 37	05 10	18 47
	9	05 56	18 03	05 47	18 12	05 39	18 20	05 29	18 29	05 20	18 39	05 10	18 49
	14	05 57	18 04	05 48	18 13	05 39	18 22	05 30	18 31	05 20	18 40	05 10	18 51
	19	05 58	18 05	05 49	18 14	05 40	18 23	05 31	18 32	05 21	18 42	05 11	18 52
	24	05 59	18 06	05 50	18 15	05 41	18 24	05 32	18 33	05 22	18 43	05 12	18 53
	29	06 00	18 07	05 51	18 16	05 43	18 25	05 33	18 34	05 24	18 43	05 13	18 54
Jul.	4	06 01	18 08	05 52	18 17	05 44	18 25	05 35	18 34	05 25	18 44	05 15	18 54
	9	06 02	18 09	05 53	18 17	05 45	18 26	05 36	18 34	05 27	18 43	05 17	18 53
	14	06 02	18 10	05 54	18 17	05 46	18 26	05 38	18 34	05 29	18 43	05 19	18 52
	19	06 03	18 10	05 55	18 17	05 47	18 25	05 39	18 33	05 31	18 42	05 22	18 51
	24	06 03	18 10	05 56	18 17	05 48	18 25	05 41	18 32	05 33	18 40	05 24	18 49
	29	06 03	18 10	05 56	18 17	05 49	18 24	05 42	18 31	05 35	18 38	05 26	18 46
Aug.	3	06 03	18 10	05 56	18 16	05 50	18 22	05 43	18 29	05 36	18 36	05 29	18 43
	8	06 02	18 09	05 56	18 15	05 51	18 21	05 44	18 27	05 38	18 33	05 31	18 40
	13	06 01	18 08	05 56	18 13	05 51	18 19	05 45	18 24	05 40	18 30	05 33	18 36
	18	06 00	18 07	05 56	18 12	05 51	18 16	05 46	18 21	05 41	18 26	05 35	18 32
	23	05 59	18 06	05 55	18 10	05 51	18 14	05 47	18 18	05 42	18 22	05 38	18 27
	28	05 58	18 04	05 54	18 08	05 51	18 11	05 47	18 15	05 44	18 18	05 39	18 22
Sep.	2	05 56	18 03	05 54	18 05	05 51	18 08	05 48	18 11	05 45	18 14	05 41	18 17
	7	05 55	18 01	05 53	18 03	05 50	18 05	05 48	18 07	05 46	18 10	05 43	18 12
	12	05 53	17 59	05 51	18 01	05 50	18 02	05 48	18 04	05 47	18 05	05 45	18 07
	17	05 51	17 58	05 50	17 58	05 50	17 59	05 49	18 00	05 48	18 00	05 47	18 01
	22	05 49	17 56	05 49	17 56	05 49	17 56	05 49	17 56	05 49	17 56	05 49	17 56
	27	05 48	17 54	05 48	17 53	05 49	17 53	05 49	17 52	05 50	17 51	05 51	17 51
Oct.	2	05 46	17 52	05 47	17 51	05 49	17 50	05 50	17 48	05 51	17 47	05 53	17 45
	7	05 44	17 51	05 46	17 49	05 48	17 47	05 50	17 45	05 53	17 43	05 55	17 40
	12	05 43	17 50	05 46	17 47	05 48	17 44	05 51	17 41	05 54	17 39	05 57	17 35
	17	05 42	17 49	05 45	17 45	05 49	17 42	05 52	17 38	05 56	17 35	05 59	17 31
	22	05 41	17 48	05 45	17 44	05 49	17 40	05 53	17 36	05 57	17 31	06 02	17 27
	27	05 40	17 47	05 45	17 43	05 50	17 38	05 54	17 33	05 59	17 28	06 05	17 23
Nov.	1	05 40	17 47	05 45	17 42	05 51	17 36	05 56	17 31	06 02	17 25	06 08	17 19
	6	05 40	17 47	05 46	17 41	05 52	17 35	05 58	17 29	06 04	17 23	06 11	17 16
	11	05 41	17 48	05 47	17 41	05 53	17 35	06 00	17 28	06 07	17 21	06 14	17 14
	16	05 41	17 48	05 48	17 42	05 55	17 35	06 02	17 27	06 10	17 20	06 18	17 12
	21	05 42	17 50	05 50	17 42	05 57	17 35	06 05	17 27	06 13	17 19	06 21	17 11
	26	05 44	17 51	05 51	17 43	05 59	17 36	06 07	17 27	06 16	17 19	06 25	17 10
Dec.	1	05 46	17 53	05 54	17 45	06 02	17 37	06 10	17 28	06 19	17 19	06 28	17 10
	6	05 47	17 55	05 56	17 47	06 04	17 38	06 13	17 29	06 22	17 20	06 32	17 11
	11	05 50	17 57	05 58	17 49	06 07	17 40	06 16	17 31	06 25	17 22	06 35	17 12
	16	05 52	18 00	06 01	17 51	06 09	17 42	06 18	17 33	06 28	17 24	06 38	17 14
	21	05 55	18 02	06 03	17 53	06 12	17 45	06 21	17 36	06 31	17 26	06 41	17 16
	26	05 57	18 05	06 06	17 56	06 14	17 47	06 23	17 38	06 33	17 29	06 43	17 19
	31	05 59	18 07	06 08	17 58	06 17	17 50	06 26	17 41	06 35	17 32	06 45	17 22

Local mean time. To obtain standard time of rise or set, see Table 5.

TABLE 4.-SUNRISE AND SUNSET, 2020

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Date	30°N.		32°N.		34°N.		36°N.		38°N.		40°N.	
	Rise h. m.	Set h. m.										
Jan. 1	06 56	17 11	07 00	17 06	07 05	17 01	07 10	16 56	07 16	16 51	07 22	16 45
6	06 57	17 15	07 01	17 10	07 06	17 05	07 11	17 00	07 16	16 55	07 22	16 49
11	06 57	17 19	07 01	17 14	07 06	17 10	07 11	17 05	07 16	17 00	07 21	16 54
16	06 57	17 23	07 01	17 19	07 05	17 14	07 10	17 10	07 15	17 05	07 20	17 00
21	06 55	17 27	06 59	17 23	07 04	17 19	07 08	17 15	07 12	17 10	07 17	17 05
26	06 54	17 32	06 57	17 28	07 01	17 24	07 05	17 20	07 10	17 16	07 14	17 11
31	06 51	17 36	06 55	17 32	06 58	17 29	07 02	17 25	07 06	17 21	07 10	17 17
Feb. 5	06 48	17 40	06 51	17 37	06 54	17 34	06 58	17 30	07 01	17 27	07 05	17 23
10	06 45	17 44	06 47	17 42	06 50	17 39	06 53	17 36	06 56	17 33	07 00	17 29
15	06 40	17 48	06 43	17 46	06 45	17 43	06 48	17 41	06 51	17 38	06 54	17 35
20	06 36	17 52	06 38	17 50	06 40	17 48	06 42	17 46	06 45	17 43	06 47	17 41
25	06 31	17 56	06 33	17 54	06 34	17 52	06 36	17 51	06 38	17 49	06 40	17 47
Mar. 1	06 26	17 59	06 27	17 58	06 28	17 57	06 30	17 55	06 31	17 54	06 33	17 52
6	06 20	18 03	06 21	18 02	06 22	18 01	06 23	18 00	06 24	17 59	06 25	17 58
11	06 14	18 06	06 15	18 05	06 15	18 05	06 16	18 04	06 17	18 04	06 17	18 03
16	06 08	18 09	06 09	18 09	06 09	18 09	06 09	18 09	06 09	18 08	06 09	18 08
21	06 02	18 12	06 02	18 12	06 02	18 13	06 02	18 13	06 02	18 13	06 01	18 13
26	05 56	18 15	05 56	18 16	05 55	18 16	05 55	18 17	05 54	18 18	05 53	18 19
31	05 50	18 18	05 49	18 19	05 48	18 20	05 47	18 21	05 46	18 22	05 45	18 24
Apr. 5	05 44	18 21	05 43	18 23	05 42	18 24	05 40	18 26	05 39	18 27	05 37	18 29
10	05 38	18 24	05 37	18 26	05 35	18 28	05 33	18 30	05 31	18 32	05 29	18 34
15	05 33	18 27	05 31	18 30	05 29	18 32	05 27	18 34	05 24	18 36	05 22	18 39
20	05 28	18 31	05 25	18 33	05 23	18 36	05 20	18 38	05 17	18 41	05 14	18 44
25	05 22	18 34	05 20	18 37	05 17	18 39	05 14	18 42	05 11	18 46	05 07	18 49
30	05 18	18 37	05 15	18 40	05 12	18 43	05 08	18 47	05 05	18 50	05 01	18 54
May. 5	05 14	18 40	05 10	18 44	05 07	18 47	05 03	18 51	04 59	18 55	04 55	18 59
10	05 10	18 43	05 06	18 47	05 02	18 51	04 58	18 55	04 54	18 59	04 49	19 04
15	05 06	18 47	05 03	18 51	04 58	18 55	04 54	18 59	04 49	19 04	04 45	19 09
20	05 04	18 50	04 59	18 54	04 55	18 58	04 50	19 03	04 46	19 08	04 40	19 13
25	05 01	18 53	04 57	18 57	04 52	19 02	04 48	19 07	04 42	19 12	04 37	19 18
30	05 00	18 56	04 55	19 00	04 50	19 05	04 45	19 10	04 40	19 16	04 34	19 22
Jun. 4	04 59	18 58	04 54	19 03	04 49	19 08	04 44	19 13	04 38	19 19	04 32	19 25
9	04 58	19 00	04 53	19 05	04 48	19 11	04 43	19 16	04 37	19 22	04 31	19 28
14	04 58	19 02	04 54	19 07	04 48	19 13	04 43	19 18	04 37	19 24	04 31	19 30
19	04 59	19 04	04 54	19 09	04 49	19 14	04 43	19 20	04 37	19 26	04 31	19 32
24	05 00	19 05	04 55	19 10	04 50	19 15	04 45	19 21	04 39	19 26	04 32	19 33
29	05 02	19 05	04 57	19 10	04 52	19 15	04 46	19 21	04 40	19 27	04 34	19 33
Jul. 4	05 04	19 05	04 59	19 10	04 54	19 15	04 49	19 20	04 43	19 26	04 37	19 32
9	05 06	19 04	05 02	19 09	04 57	19 14	04 51	19 19	04 46	19 25	04 40	19 31
14	05 09	19 03	05 04	19 07	04 59	19 12	04 54	19 17	04 49	19 22	04 43	19 28
19	05 12	19 01	05 07	19 05	05 03	19 10	04 58	19 14	04 53	19 20	04 47	19 25
24	05 14	18 58	05 10	19 02	05 06	19 07	05 02	19 11	04 57	19 16	04 52	19 21
29	05 17	18 55	05 14	18 59	05 10	19 03	05 05	19 07	05 01	19 12	04 56	19 16
Aug. 3	05 20	18 51	05 17	18 55	05 13	18 59	05 09	19 03	05 05	19 07	05 01	19 11
8	05 23	18 47	05 20	18 51	05 17	18 54	05 13	18 57	05 09	19 01	05 05	19 05
13	05 26	18 43	05 23	18 46	05 20	18 49	05 17	18 52	05 14	18 55	05 10	18 59
18	05 29	18 38	05 27	18 40	05 24	18 43	05 21	18 46	05 18	18 49	05 15	18 52
23	05 32	18 32	05 30	18 35	05 28	18 37	05 25	18 39	05 22	18 42	05 20	18 45
28	05 35	18 27	05 33	18 29	05 31	18 31	05 29	18 33	05 27	18 35	05 24	18 37
Sep. 2	05 38	18 21	05 36	18 22	05 35	18 24	05 33	18 26	05 31	18 27	05 29	18 29
7	05 40	18 15	05 39	18 16	05 38	18 17	05 37	18 18	05 35	18 20	05 34	18 21
12	05 43	18 09	05 42	18 09	05 41	18 10	05 40	18 11	05 39	18 12	05 38	18 13
17	05 46	18 02	05 45	18 03	05 45	18 03	05 44	18 04	05 44	18 04	05 43	18 05
22	05 49	17 56	05 48	17 56	05 48	17 56	05 48	17 56	05 48	17 56	05 48	17 57
27	05 51	17 50	05 52	17 50	05 52	17 49	05 52	17 49	05 52	17 49	05 53	17 48
Oct. 2	05 54	17 44	05 55	17 43	05 55	17 42	05 56	17 42	05 57	17 41	05 58	17 40
7	05 57	17 38	05 58	17 37	05 59	17 36	06 00	17 35	06 01	17 33	06 03	17 32
12	06 00	17 32	06 02	17 31	06 03	17 29	06 04	17 28	06 06	17 26	06 08	17 24
17	06 03	17 27	06 05	17 25	06 07	17 23	06 09	17 21	06 11	17 19	06 13	17 17
22	06 07	17 22	06 09	17 19	06 11	17 17	06 13	17 15	06 16	17 13	06 18	17 10
27	06 10	17 17	06 13	17 14	06 15	17 12	06 18	17 09	06 21	17 06	06 24	17 03
Nov. 1	06 14	17 13	06 17	17 10	06 20	17 07	06 23	17 04	06 26	17 01	06 29	16 57
6	06 18	17 09	06 21	17 06	06 24	17 03	06 28	16 59	06 31	16 55	06 35	16 52
11	06 22	17 06	06 25	17 02	06 29	16 59	06 33	16 55	06 37	16 51	06 41	16 47
16	06 26	17 03	06 30	17 00	06 34	16 56	06 38	16 52	06 42	16 47	06 47	16 43
21	06 30	17 01	06 34	16 57	06 38	16 53	06 43	16 49	06 47	16 44	06 52	16 39
26	06 34	17 00	06 39	16 56	06 43	16 52	06 48	16 47	06 53	16 42	06 58	16 37
Dec. 1	06 38	17 00	06 43	16 55	06 47	16 51	06 52	16 46	06 57	16 41	07 03	16 35
6	06 42	17 00	06 47	16 55	06 52	16 51	06 57	16 46	07 02	16 40	07 08	16 35
11	06 46	17 01	06 51	16 56	06 55	16 51	07 01	16 46	07 06	16 41	07 12	16 35
16	06 49	17 03	06 54	16 58	06 59	16 53	07 04	16 48	07 10	16 42	07 16	16 36
21	06 52	17 05	06 57	17 00	07 02	16 55	07 07	16 50	07 12	16 44	07 18	16 38
26	06 54	17 08	06 59	17 03	07 04	16 58	07 09	16 53	07 15	16 47	07 21	16 41
31	06 56	17 11	07 00	17 06	07 05	17 01	07 10	16 56	07 16	16 51	07 22	16 45

Local mean time. To obtain standard time of rise or set, see Table 5.

TABLE 4.-SUNRISE AND SUNSET, 2020

Date	42°N.		44°N.		46°N.		48°N.		50°N.		52°N.	
	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.
Jan. 1	07 28	16 39	07 35	16 32	07 42	16 25	07 50	16 17	07 59	16 08	08 08	15 59
6	07 28	16 43	07 35	16 37	07 42	16 30	07 49	16 22	07 58	16 14	08 07	16 04
11	07 27	16 49	07 33	16 42	07 40	16 36	07 48	16 28	07 56	16 20	08 05	16 11
16	07 25	16 54	07 31	16 48	07 38	16 42	07 45	16 35	07 52	16 27	08 01	16 19
21	07 23	17 00	07 28	16 55	07 34	16 49	07 41	16 42	07 48	16 35	07 56	16 27
26	07 19	17 06	07 24	17 01	07 30	16 56	07 36	16 50	07 42	16 43	07 50	16 36
31	07 14	17 13	07 19	17 08	07 24	17 03	07 30	16 58	07 36	16 52	07 42	16 45
Feb. 5	07 09	17 19	07 13	17 15	07 18	17 10	07 23	17 05	07 28	17 00	07 34	16 54
10	07 03	17 26	07 07	17 22	07 11	17 18	07 16	17 13	07 20	17 09	07 26	17 04
15	06 57	17 32	07 00	17 29	07 04	17 25	07 07	17 21	07 12	17 17	07 16	17 13
20	06 50	17 38	06 53	17 36	06 56	17 33	06 59	17 29	07 02	17 26	07 06	17 22
25	06 42	17 45	06 45	17 42	06 47	17 40	06 50	17 37	06 53	17 34	06 56	17 31
Mar. 1	06 35	17 51	06 36	17 49	06 38	17 47	06 40	17 45	06 43	17 43	06 45	17 40
6	06 26	17 57	06 28	17 55	06 29	17 54	06 31	17 53	06 32	17 51	06 34	17 49
11	06 18	18 02	06 19	18 02	06 20	18 01	06 21	18 00	06 22	17 59	06 23	17 58
16	06 10	18 08	06 10	18 08	06 10	18 08	06 10	18 07	06 11	18 07	06 11	18 07
21	06 01	18 14	06 01	18 14	06 01	18 14	06 00	18 15	06 00	18 15	06 00	18 16
26	05 53	18 19	05 52	18 20	05 51	18 21	05 50	18 22	05 49	18 23	05 48	18 24
31	05 44	18 25	05 43	18 26	05 41	18 28	05 40	18 29	05 38	18 31	05 36	18 33
Apr. 5	05 35	18 30	05 34	18 32	05 32	18 34	05 30	18 36	05 27	18 39	05 25	18 41
10	05 27	18 36	05 25	18 38	05 22	18 41	05 20	18 44	05 17	18 47	05 14	18 50
15	05 19	18 42	05 16	18 44	05 13	18 48	05 10	18 51	05 06	18 54	05 03	18 58
20	05 11	18 47	05 08	18 50	05 04	18 54	05 01	18 58	04 56	19 02	04 52	19 07
25	05 04	18 53	05 00	18 56	04 56	19 01	04 52	19 05	04 47	19 10	04 41	19 15
30	04 57	18 58	04 53	19 02	04 48	19 07	04 43	19 12	04 38	19 18	04 32	19 24
May. 5	04 50	19 04	04 46	19 08	04 41	19 14	04 35	19 19	04 29	19 25	04 22	19 32
10	04 45	19 09	04 39	19 14	04 34	19 20	04 28	19 26	04 21	19 33	04 14	19 40
15	04 39	19 14	04 34	19 20	04 28	19 26	04 21	19 33	04 14	19 40	04 06	19 48
20	04 35	19 19	04 29	19 25	04 22	19 32	04 15	19 39	04 07	19 47	03 59	19 56
25	04 31	19 24	04 24	19 30	04 18	19 37	04 10	19 45	04 02	19 53	03 52	20 02
30	04 28	19 28	04 21	19 35	04 14	19 42	04 06	19 50	03 57	19 59	03 47	20 09
Jun. 4	04 26	19 32	04 19	19 39	04 11	19 46	04 03	19 54	03 54	20 04	03 44	20 14
9	04 24	19 35	04 17	19 42	04 09	19 50	04 01	19 58	03 51	20 08	03 41	20 18
14	04 24	19 37	04 17	19 44	04 09	19 52	04 00	20 01	03 50	20 11	03 40	20 21
19	04 24	19 39	04 17	19 46	04 09	19 54	04 00	20 03	03 50	20 13	03 40	20 23
24	04 25	19 40	04 18	19 47	04 10	19 55	04 01	20 04	03 52	20 13	03 41	20 24
29	04 27	19 40	04 20	19 47	04 12	19 55	04 04	20 03	03 54	20 13	03 43	20 24
Jul. 4	04 30	19 39	04 23	19 46	04 15	19 53	04 07	20 02	03 57	20 11	03 47	20 22
9	04 33	19 37	04 27	19 44	04 19	19 51	04 11	19 59	04 02	20 08	03 52	20 18
14	04 37	19 34	04 31	19 41	04 23	19 48	04 16	19 56	04 07	20 04	03 57	20 14
19	04 41	19 31	04 35	19 37	04 28	19 44	04 21	19 51	04 13	19 59	04 04	20 08
24	04 46	19 27	04 40	19 32	04 34	19 39	04 27	19 46	04 19	19 53	04 10	20 02
29	04 51	19 21	04 45	19 27	04 39	19 33	04 33	19 39	04 26	19 46	04 18	19 54
Aug. 3	04 56	19 16	04 51	19 21	04 45	19 26	04 39	19 32	04 33	19 39	04 26	19 46
8	05 01	19 10	04 56	19 14	04 51	19 19	04 46	19 24	04 40	19 30	04 33	19 37
13	05 06	19 03	05 02	19 07	04 57	19 11	04 53	19 16	04 47	19 21	04 41	19 27
18	05 11	18 55	05 08	18 59	05 04	19 03	04 59	19 07	04 55	19 12	04 50	19 17
23	05 17	18 48	05 13	18 51	05 10	18 54	05 06	18 58	05 02	19 02	04 58	19 06
28	05 22	18 40	05 19	18 42	05 16	18 45	05 13	18 48	05 10	18 52	05 06	18 55
Sep. 2	05 27	18 31	05 25	18 34	05 22	18 36	05 20	18 38	05 17	18 41	05 14	18 44
7	05 32	18 23	05 30	18 24	05 29	18 26	05 27	18 28	05 24	18 30	05 22	18 33
12	05 37	18 14	05 36	18 15	05 35	18 17	05 33	18 18	05 32	18 19	05 30	18 21
17	05 43	18 05	05 42	18 06	05 41	18 07	05 40	18 07	05 39	18 08	05 38	18 09
22	05 48	17 57	05 48	17 57	05 47	17 57	05 47	17 57	05 47	17 57	05 47	17 58
27	05 53	17 48	05 53	17 48	05 54	17 47	05 54	17 47	05 54	17 46	05 55	17 46
Oct. 2	05 58	17 39	05 59	17 38	06 00	17 38	06 01	17 37	06 02	17 35	06 03	17 34
7	06 04	17 31	06 05	17 29	06 07	17 28	06 08	17 26	06 10	17 25	06 12	17 23
12	06 09	17 23	06 11	17 21	06 13	17 19	06 15	17 17	06 18	17 14	06 20	17 12
17	06 15	17 15	06 17	17 12	06 20	17 10	06 23	17 07	06 26	17 04	06 29	17 01
22	06 21	17 07	06 24	17 04	06 27	17 01	06 30	16 58	06 34	16 54	06 38	16 50
27	06 27	17 00	06 30	16 57	06 34	16 53	06 38	16 49	06 42	16 45	06 47	16 40
Nov. 1	06 33	16 54	06 37	16 50	06 41	16 46	06 45	16 41	06 50	16 36	06 56	16 31
6	06 39	16 48	06 44	16 43	06 48	16 39	06 53	16 34	06 59	16 28	07 05	16 22
11	06 45	16 42	06 50	16 38	06 55	16 32	07 01	16 27	07 07	16 21	07 13	16 14
16	06 52	16 38	06 57	16 33	07 02	16 27	07 08	16 21	07 15	16 14	07 22	16 07
21	06 58	16 34	07 03	16 28	07 09	16 22	07 16	16 16	07 23	16 09	07 31	16 01
26	07 03	16 31	07 09	16 25	07 16	16 19	07 23	16 12	07 30	16 04	07 39	15 56
Dec. 1	07 09	16 29	07 15	16 23	07 22	16 16	07 29	16 09	07 37	16 01	07 46	15 52
6	07 14	16 28	07 20	16 22	07 27	16 15	07 35	16 07	07 43	15 59	07 53	15 49
11	07 18	16 29	07 25	16 22	07 32	16 15	07 40	16 07	07 49	15 58	07 58	15 48
16	07 22	16 30	07 29	16 23	07 36	16 16	07 44	16 07	07 53	15 59	08 03	15 49
21	07 25	16 32	07 32	16 25	07 39	16 18	07 47	16 09	07 56	16 01	08 06	15 51
26	07 27	16 35	07 34	16 28	07 41	16 21	07 49	16 13	07 58	16 04	08 08	15 54
31	07 28	16 39	07 35	16 32	07 42	16 25	07 50	16 17	07 59	16 08	08 08	15 58

Local mean time. To obtain standard time of rise or set, see Table 5.

TABLE 4.-SUNRISE AND SUNSET, 2020

Date	54° N.		56° N.		58° N.		60° N.		62° N.		64° N.	
	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.
Jan. 1	08 19	15 48	08 31	15 36	08 46	15 21	09 02	15 04	09 23	14 44	09 50	14 17
6	08 17	15 54	08 29	15 42	08 43	15 29	08 59	15 12	09 19	14 53	09 44	14 28
11	08 14	16 01	08 26	15 50	08 39	15 37	08 54	15 22	09 12	15 04	09 35	14 41
16	08 10	16 10	08 21	15 59	08 33	15 47	08 47	15 33	09 04	15 16	09 24	14 55
21	08 04	16 18	08 14	16 09	08 25	15 58	08 38	15 45	08 54	15 29	09 12	15 11
26	07 58	16 28	08 06	16 19	08 17	16 09	08 28	15 57	08 42	15 44	08 59	15 27
31	07 50	16 38	07 58	16 30	08 07	16 21	08 17	16 10	08 30	15 58	08 44	15 44
Feb. 5	07 41	16 48	07 48	16 41	07 56	16 32	08 06	16 23	08 16	16 13	08 29	16 00
10	07 31	16 58	07 38	16 52	07 45	16 45	07 53	16 36	08 02	16 27	08 13	16 17
15	07 21	17 08	07 27	17 03	07 33	16 57	07 40	16 50	07 48	16 42	07 57	16 33
20	07 10	17 18	07 15	17 13	07 20	17 08	07 26	17 03	07 32	16 56	07 40	16 49
25	06 59	17 28	07 03	17 24	07 07	17 20	07 12	17 16	07 17	17 10	07 23	17 04
Mar. 1	06 48	17 38	06 51	17 35	06 54	17 32	06 57	17 28	07 01	17 24	07 06	17 20
6	06 36	17 48	06 38	17 46	06 40	17 43	06 43	17 41	06 45	17 38	06 49	17 35
11	06 24	17 57	06 25	17 56	06 26	17 55	06 28	17 53	06 29	17 52	06 31	17 50
16	06 11	18 07	06 12	18 06	06 12	18 06	06 13	18 06	06 13	18 05	06 14	18 05
21	05 59	18 16	05 59	18 17	05 58	18 17	05 57	18 18	05 57	18 19	05 56	18 20
26	05 47	18 25	05 45	18 27	05 44	18 28	05 42	18 30	05 40	18 32	05 38	18 35
31	05 34	18 35	05 32	18 37	05 30	18 40	05 27	18 42	05 24	18 46	05 21	18 49
Apr. 5	05 22	18 44	05 19	18 47	05 16	18 51	05 12	18 55	05 08	18 59	05 03	19 04
10	05 10	18 53	05 06	18 57	05 02	19 02	04 57	19 07	04 52	19 13	04 45	19 19
15	04 58	19 03	04 54	19 08	04 48	19 13	04 42	19 19	04 36	19 26	04 28	19 34
20	04 47	19 12	04 41	19 18	04 35	19 24	04 28	19 32	04 20	19 40	04 10	19 50
25	04 36	19 21	04 29	19 28	04 22	19 36	04 14	19 44	04 04	19 54	03 53	20 05
30	04 25	19 31	04 18	19 38	04 09	19 47	04 00	19 56	03 49	20 08	03 36	20 21
May. 5	04 15	19 40	04 07	19 48	03 57	19 58	03 46	20 09	03 34	20 22	03 19	20 37
10	04 05	19 49	03 56	19 58	03 46	20 09	03 34	20 21	03 19	20 36	03 02	20 53
15	03 57	19 57	03 47	20 07	03 35	20 19	03 21	20 33	03 05	20 49	02 46	21 09
20	03 49	20 05	03 38	20 16	03 25	20 29	03 10	20 44	02 53	21 03	02 30	21 25
25	03 42	20 13	03 30	20 25	03 17	20 39	03 00	20 55	02 41	21 15	02 16	21 41
30	03 36	20 20	03 24	20 32	03 09	20 47	02 52	21 05	02 30	21 27	02 02	21 56
Jun. 4	03 32	20 25	03 19	20 39	03 03	20 54	02 45	21 13	02 22	21 37	01 50	22 09
9	03 29	20 30	03 15	20 44	02 59	21 00	02 40	21 20	02 15	21 45	01 40	22 20
14	03 27	20 34	03 13	20 48	02 57	21 04	02 37	21 25	02 11	21 51	01 34	22 28
19	03 27	20 36	03 13	20 50	02 56	21 07	02 36	21 27	02 09	21 54	01 31	22 32
24	03 29	20 36	03 14	20 51	02 58	21 07	02 37	21 28	02 11	21 54	01 33	22 32
29	03 31	20 36	03 17	20 50	03 01	21 06	02 41	21 26	02 15	21 51	01 39	22 27
Jul. 4	03 35	20 33	03 22	20 47	03 06	21 03	02 46	21 22	02 22	21 46	01 48	22 19
9	03 40	20 30	03 27	20 43	03 12	20 58	02 54	21 16	02 31	21 38	02 00	22 53
14	03 46	20 25	03 34	20 37	03 20	20 51	03 03	21 08	02 41	21 29	02 14	21 56
19	03 53	20 18	03 42	20 30	03 28	20 43	03 13	20 59	02 53	21 18	02 29	21 42
24	04 01	20 11	03 50	20 22	03 38	20 34	03 23	20 48	03 06	21 05	02 44	21 26
29	04 09	20 03	03 59	20 13	03 48	20 24	03 35	20 37	03 19	20 52	03 00	21 11
Aug. 3	04 17	19 54	04 08	20 03	03 58	20 13	03 46	20 24	03 33	20 38	03 16	20 54
8	04 26	19 44	04 18	19 52	04 09	20 01	03 58	20 11	03 46	20 23	03 31	20 37
13	04 35	19 33	04 28	19 40	04 20	19 48	04 10	19 57	04 00	20 08	03 47	20 20
18	04 44	19 22	04 38	19 29	04 30	19 36	04 22	19 43	04 13	19 52	04 02	20 03
23	04 53	19 11	04 47	19 16	04 41	19 22	04 34	19 29	04 27	19 37	04 17	19 46
28	05 02	18 59	04 57	19 04	04 52	19 09	04 46	19 14	04 40	19 21	04 32	19 28
Sep. 2	05 11	18 47	05 07	18 51	05 03	18 55	04 58	18 59	04 53	19 04	04 47	19 10
7	05 20	18 35	05 17	18 38	05 14	18 41	05 10	18 44	05 06	18 48	05 01	18 53
12	05 28	18 23	05 26	18 25	05 24	18 27	05 22	18 29	05 19	18 32	05 16	18 35
17	05 37	18 10	05 36	18 11	05 35	18 12	05 33	18 14	05 32	18 15	05 30	18 17
22	05 46	17 58	05 46	17 58	05 46	17 58	05 45	17 59	05 45	17 59	05 44	17 59
27	05 55	17 45	05 56	17 45	05 56	17 44	05 57	17 43	05 58	17 43	05 58	17 42
Oct. 2	06 04	17 33	06 06	17 32	06 07	17 30	06 09	17 28	06 11	17 26	06 13	17 24
7	06 14	17 21	06 16	17 19	06 18	17 16	06 21	17 13	06 24	17 10	06 27	17 07
12	06 23	17 09	06 26	17 06	06 29	17 02	06 33	16 59	06 37	16 54	06 42	16 49
17	06 32	16 57	06 36	16 53	06 40	16 49	06 45	16 44	06 51	16 39	06 57	16 32
22	06 42	16 46	06 47	16 41	06 52	16 36	06 58	16 30	07 04	16 23	07 12	16 15
27	06 52	16 35	06 57	16 30	07 03	16 23	07 10	16 16	07 18	16 08	07 28	15 59
Nov. 1	07 01	16 25	07 08	16 19	07 15	16 11	07 23	16 03	07 33	15 54	07 44	15 43
6	07 11	16 15	07 18	16 08	07 27	16 00	07 36	15 50	07 47	15 40	08 00	15 27
11	07 21	16 07	07 29	15 58	07 38	15 49	07 49	15 39	08 01	15 26	08 16	15 11
16	07 30	15 59	07 39	15 50	07 50	15 39	08 01	15 28	08 15	15 14	08 32	14 57
21	07 40	15 52	07 49	15 42	08 01	15 31	08 14	15 18	08 29	15 02	08 48	14 44
26	07 48	15 46	07 59	15 36	08 11	15 23	08 25	15 09	08 42	14 52	09 03	14 31
Dec. 1	07 56	15 42	08 07	15 31	08 20	15 18	08 36	15 02	08 54	14 44	09 17	14 21
6	08 03	15 39	08 15	15 27	08 29	15 13	08 45	14 57	09 05	14 37	09 30	14 12
11	08 09	15 38	08 21	15 25	08 36	15 11	08 53	14 54	09 13	14 33	09 40	14 06
16	08 14	15 38	08 26	15 25	08 41	15 10	08 59	14 53	09 20	14 32	09 48	14 04
21	08 17	15 40	08 30	15 27	08 45	15 12	09 02	14 54	09 24	14 33	09 52	14 04
26	08 19	15 43	08 31	15 30	08 46	15 16	09 03	14 58	09 25	14 37	09 53	14 09
31	08 19	15 48	08 31	15 35	08 46	15 21	09 03	15 04	09 23	14 43	09 50	14 17

Local mean time. To obtain standard time of rise or set, see Table 5.

TABLE 4.-SUNRISE AND SUNSET, 2020

Date	66°N.		68°N.		70°N.		72°N.		74°N.		76°N.	
	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.
Jan. 1	10 28	13 39	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
6	10 19	13 53	11 25	12 47	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
11	10 06	14 10	10 55	13 21	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
16	09 51	14 28	10 31	13 49	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
21	09 36	14 48	10 08	14 16	11 00	13 23	-- --	-- --	-- --	-- --	-- --	-- --
26	09 19	15 07	09 45	14 40	10 24	14 02	11 53	12 33	-- --	-- --	-- --	-- --
31	09 02	15 26	09 24	15 04	09 54	14 34	10 40	13 48	-- --	-- --	-- --	-- --
Feb. 5	08 44	15 45	09 02	15 27	09 27	15 03	10 00	14 29	10 58	13 31	-- --	-- --
10	08 26	16 04	08 41	15 48	09 01	15 29	09 27	15 03	10 05	14 25	11 18	13 12
15	08 07	16 22	08 20	16 09	08 36	15 54	08 57	15 33	09 24	15 06	10 06	14 24
20	07 49	16 40	07 59	16 30	08 12	16 17	08 28	16 01	08 49	15 40	09 19	15 11
25	07 30	16 58	07 39	16 49	07 49	16 39	08 01	16 27	08 17	16 11	08 38	15 50
Mar. 1	07 11	17 15	07 18	17 08	07 25	17 01	07 34	16 52	07 46	16 41	08 01	16 26
6	06 52	17 32	06 57	17 27	07 02	17 22	07 08	17 16	07 16	17 08	07 26	16 59
11	06 33	17 48	06 36	17 46	06 39	17 43	06 42	17 40	06 47	17 35	06 53	17 30
16	06 14	18 05	06 15	18 04	06 16	18 03	06 17	18 03	06 18	18 02	06 20	18 01
21	05 55	18 21	05 54	18 22	05 53	18 24	05 51	18 26	05 49	18 28	05 46	18 31
26	05 36	18 37	05 33	18 40	05 29	18 44	05 25	18 49	05 20	18 54	05 13	19 02
31	05 17	18 54	05 12	18 59	05 06	19 05	04 59	19 12	04 50	19 21	04 39	19 33
Apr. 5	04 57	19 10	04 50	19 17	04 42	19 26	04 32	19 36	04 20	19 49	04 03	20 07
10	04 38	19 27	04 29	19 36	04 18	19 47	04 05	20 01	03 48	20 19	03 25	20 43
15	04 18	19 44	04 07	19 55	03 54	20 09	03 37	20 27	03 14	20 51	02 42	21 25
20	03 59	20 01	03 45	20 15	03 29	20 33	03 07	20 55	02 37	21 27	01 49	22 20
25	03 39	20 19	03 23	20 36	03 02	20 57	02 34	21 27	01 52	22 12	** **	** **
30	03 20	20 37	03 00	20 58	02 34	21 24	01 57	22 04	00 44	23 45	** **	** **
May. 5	03 00	20 56	02 37	21 21	02 04	21 55	01 09	22 57	** **	** **	** **	** **
10	02 40	21 15	02 12	21 45	01 28	22 32	** **	** **	** **	** **	** **	** **
15	02 21	21 35	01 45	22 13	00 33	23 46	** **	** **	** **	** **	** **	** **
20	02 00	21 56	01 14	22 46	** **	** **	** **	** **	** **	** **	** **	** **
25	01 40	22 18	00 27	23 52	** **	** **	** **	** **	** **	** **	** **	** **
30	01 19	22 40	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **
Jun. 4	00 57	23 04	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **
9	00 32	23 33	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **
14	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **
19	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **
24	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **
29	** **	23 54	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **
Jul. 4	00 44	23 20	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **
9	01 10	22 56	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **
14	01 33	22 35	** **	** **	** **	** **	** **	** **	** **	** **	** **	** **
19	01 55	22 15	00 51	23 12	** **	** **	** **	** **	** **	** **	** **	** **
24	02 15	21 54	01 32	22 36	** **	** **	** **	** **	** **	** **	** **	** **
29	02 36	21 34	02 01	22 07	01 00	23 03	** **	** **	** **	** **	** **	** **
Aug. 3	02 55	21 14	02 27	21 41	01 46	22 20	** **	** **	** **	** **	** **	** **
8	03 14	20 55	02 51	21 17	02 20	21 47	01 29	22 33	** **	** **	** **	** **
13	03 32	20 35	03 13	20 53	02 48	21 17	02 13	21 50	01 09	22 47	** **	** **
18	03 49	20 16	03 34	20 31	03 14	20 50	02 47	21 16	02 07	21 53	00 40	23 03
23	04 07	19 56	03 54	20 09	03 37	20 24	03 16	20 44	02 48	21 12	02 03	21 53
28	04 23	19 37	04 13	19 47	04 00	19 59	03 43	20 15	03 22	20 36	02 51	21 05
Sep. 2	04 40	19 17	04 31	19 25	04 21	19 35	04 08	19 47	03 52	20 03	03 30	20 24
7	04 56	18 58	04 49	19 04	04 42	19 11	04 32	19 20	04 20	19 32	04 04	19 47
12	05 12	18 38	05 07	18 43	05 02	18 48	04 55	18 54	04 47	19 02	04 36	19 12
17	05 28	18 19	05 25	18 22	05 22	18 25	05 18	18 28	05 13	18 32	05 07	18 38
22	05 43	18 00	05 43	18 01	05 42	18 02	05 40	18 02	05 39	18 03	05 37	18 05
27	05 59	17 41	06 00	17 40	06 01	17 38	06 03	17 37	06 04	17 35	06 06	17 32
Oct. 2	06 15	17 22	06 18	17 19	06 21	17 15	06 25	17 11	06 30	17 06	06 36	16 59
7	06 31	17 03	06 36	16 58	06 41	16 52	06 48	16 45	06 56	16 37	07 07	16 25
12	06 48	16 44	06 54	16 37	07 02	16 29	07 12	16 19	07 24	16 07	07 40	15 51
17	07 04	16 25	07 13	16 16	07 23	16 06	07 36	15 53	07 53	15 36	08 15	15 13
22	07 21	16 06	07 32	15 55	07 45	15 42	08 02	15 25	08 24	15 03	08 55	14 32
27	07 39	15 48	07 52	15 34	08 08	15 18	08 29	14 57	08 58	14 28	09 43	13 43
Nov. 1	07 57	15 29	08 12	15 13	08 33	14 53	08 59	14 26	09 39	13 47	11 06	12 20
6	08 15	15 11	08 34	14 52	08 59	14 27	09 34	13 52	10 36	12 50	-- --	-- --
11	08 34	14 54	08 56	14 31	09 27	14 00	10 16	13 11	-- --	-- --	-- --	-- --
16	08 53	14 36	09 20	14 09	09 59	13 30	-- --	-- --	-- --	-- --	-- --	-- --
21	09 11	14 20	09 44	13 47	10 39	12 52	-- --	-- --	-- --	-- --	-- --	-- --
26	09 30	14 04	10 10	13 24	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
Dec. 1	09 48	13 50	10 39	12 59	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
6	10 05	13 37	11 14	12 28	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
11	10 19	13 27	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
16	10 30	13 22	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
21	10 35	13 22	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
26	10 34	13 27	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --
31	10 29	13 38	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --

Local mean time. To obtain standard time of rise or set, see Table 5.

TABLE 4.-SUNRISE AND SUNSET, 2020

Date	0° S.		5° S.		10° S.		15° S.		20° S.		25° S.	
	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.
Jan. 1	06 00	18 07	05 51	18 16	05 42	18 24	05 33	18 33	05 24	18 43	05 13	18 53
6	06 02	18 09	05 54	18 18	05 45	18 26	05 36	18 35	05 27	18 44	05 17	18 54
11	06 04	18 11	05 56	18 19	05 48	18 28	05 39	18 36	05 30	18 45	05 20	18 55
16	06 06	18 13	05 58	18 21	05 50	18 29	05 42	18 37	05 33	18 46	05 24	18 55
21	06 08	18 15	06 00	18 22	05 53	18 29	05 45	18 37	05 37	18 45	05 28	18 54
26	06 09	18 16	06 02	18 23	05 55	18 30	05 48	18 37	05 40	18 45	05 32	18 53
31	06 10	18 17	06 03	18 23	05 57	18 30	05 50	18 36	05 43	18 43	05 36	18 51
Feb. 5	06 10	18 17	06 05	18 23	05 59	18 29	05 53	18 35	05 46	18 42	05 39	18 48
10	06 11	18 18	06 06	18 23	06 00	18 28	05 55	18 33	05 49	18 39	05 43	18 45
15	06 11	18 18	06 06	18 22	06 01	18 27	05 57	18 31	05 51	18 37	05 46	18 42
20	06 10	18 17	06 06	18 21	06 02	18 25	05 58	18 29	05 54	18 33	05 49	18 38
25	06 10	18 16	06 07	18 20	06 03	18 23	06 00	18 26	05 56	18 30	05 52	18 34
Mar. 1	06 09	18 16	06 06	18 18	06 04	18 21	06 01	18 23	05 58	18 26	05 55	18 29
6	06 08	18 14	06 06	18 16	06 04	18 18	06 02	18 20	06 00	18 22	05 57	18 25
11	06 07	18 13	06 05	18 14	06 04	18 16	06 03	18 17	06 01	18 18	06 00	18 20
16	06 05	18 12	06 05	18 12	06 04	18 13	06 03	18 13	06 03	18 14	06 02	18 15
21	06 04	18 10	06 04	18 10	06 04	18 10	06 04	18 10	06 04	18 10	06 04	18 09
26	06 02	18 09	06 03	18 08	06 04	18 07	06 05	18 06	06 06	18 05	06 06	18 04
31	06 01	18 07	06 02	18 06	06 04	18 04	06 05	18 03	06 07	18 01	06 09	17 59
Apr. 5	05 59	18 06	06 02	18 04	06 04	18 01	06 06	17 59	06 08	17 57	06 11	17 54
10	05 58	18 04	06 01	18 02	06 04	17 59	06 07	17 56	06 10	17 53	06 13	17 49
15	05 57	18 03	06 00	18 00	06 04	17 56	06 07	17 52	06 11	17 49	06 15	17 45
20	05 56	18 02	06 00	17 58	06 04	17 54	06 08	17 49	06 13	17 45	06 17	17 40
25	05 55	18 01	05 59	17 56	06 04	17 52	06 09	17 47	06 14	17 41	06 20	17 36
30	05 54	18 01	05 59	17 55	06 05	17 50	06 10	17 44	06 16	17 38	06 22	17 32
May. 5	05 53	18 00	05 59	17 54	06 05	17 48	06 11	17 42	06 18	17 36	06 24	17 29
10	05 53	18 00	05 59	17 53	06 06	17 47	06 12	17 40	06 19	17 33	06 27	17 26
15	05 53	18 00	06 00	17 53	06 07	17 46	06 14	17 39	06 21	17 31	06 29	17 23
20	05 53	18 00	06 00	17 53	06 08	17 45	06 15	17 38	06 23	17 30	06 32	17 21
25	05 53	18 01	06 01	17 53	06 09	17 45	06 17	17 37	06 25	17 29	06 34	17 19
30	05 54	18 01	06 02	17 53	06 10	17 45	06 19	17 37	06 27	17 28	06 37	17 18
Jun. 4	05 55	18 02	06 03	17 54	06 11	17 45	06 20	17 37	06 29	17 28	06 39	17 18
9	05 56	18 03	06 04	17 55	06 13	17 46	06 22	17 37	06 31	17 28	06 41	17 18
14	05 57	18 04	06 05	17 55	06 14	17 47	06 23	17 38	06 33	17 28	06 43	17 18
19	05 58	18 05	06 06	17 56	06 15	17 48	06 24	17 39	06 34	17 29	06 44	17 19
24	05 59	18 06	06 08	17 58	06 16	17 49	06 25	17 40	06 35	17 30	06 45	17 20
29	06 00	18 07	06 09	17 59	06 17	17 50	06 26	17 41	06 36	17 32	06 46	17 22
Jul. 4	06 01	18 08	06 09	18 00	06 18	17 51	06 27	17 42	06 36	17 33	06 46	17 23
9	06 02	18 09	06 10	18 01	06 18	17 52	06 27	17 44	06 36	17 35	06 45	17 25
14	06 02	18 10	06 10	18 02	06 18	17 54	06 27	17 45	06 35	17 37	06 44	17 28
19	06 03	18 10	06 10	18 02	06 18	17 55	06 26	17 47	06 34	17 39	06 43	17 30
24	06 03	18 10	06 10	18 03	06 17	17 56	06 25	17 48	06 33	17 40	06 41	17 32
29	06 03	18 10	06 10	18 03	06 17	17 56	06 24	17 50	06 31	17 42	06 39	17 34
Aug. 3	06 03	18 10	06 09	18 03	06 15	17 57	06 22	17 51	06 29	17 44	06 36	17 37
8	06 02	18 09	06 08	18 03	06 14	17 58	06 20	17 52	06 26	17 46	06 33	17 39
13	06 01	18 08	06 07	18 03	06 12	17 58	06 17	17 53	06 23	17 47	06 29	17 41
18	06 00	18 07	06 05	18 03	06 10	17 58	06 14	17 53	06 19	17 48	06 25	17 43
23	05 59	18 06	06 03	18 02	06 07	17 58	06 11	17 54	06 16	17 50	06 20	17 45
28	05 58	18 04	06 01	18 01	06 05	17 58	06 08	17 54	06 12	17 51	06 15	17 47
Sep. 2	05 56	18 03	05 59	18 00	06 02	17 57	06 04	17 55	06 07	17 52	06 10	17 49
7	05 55	18 01	05 57	17 59	05 59	17 57	06 01	17 55	06 03	17 53	06 05	17 51
12	05 53	17 59	05 54	17 58	05 56	17 57	05 57	17 55	05 58	17 54	06 00	17 53
17	05 51	17 58	05 52	17 57	05 53	17 56	05 53	17 56	05 54	17 55	05 55	17 54
22	05 49	17 56	05 49	17 56	05 49	17 56	05 49	17 56	05 49	17 56	05 49	17 56
27	05 48	17 54	05 47	17 55	05 46	17 56	05 46	17 56	05 45	17 57	05 44	17 58
Oct. 2	05 46	17 52	05 45	17 54	05 43	17 55	05 42	17 57	05 40	17 58	05 39	18 00
7	05 44	17 51	05 42	17 53	05 40	17 55	05 38	17 57	05 36	18 00	05 33	18 02
12	05 43	17 50	05 40	17 52	05 38	17 55	05 35	17 58	05 32	18 01	05 29	18 05
17	05 42	17 49	05 39	17 52	05 35	17 55	05 32	17 59	05 28	18 03	05 24	18 07
22	05 41	17 48	05 37	17 52	05 33	17 56	05 29	18 00	05 24	18 05	05 19	18 10
27	05 40	17 47	05 36	17 52	05 31	17 57	05 26	18 02	05 21	18 07	05 15	18 13
Nov. 1	05 40	17 47	05 35	17 52	05 30	17 58	05 24	18 03	05 18	18 09	05 12	18 16
6	05 40	17 47	05 34	17 53	05 28	17 59	05 22	18 05	05 16	18 12	05 09	18 19
11	05 41	17 48	05 34	17 54	05 28	18 01	05 21	18 07	05 14	18 15	05 06	18 22
16	05 41	17 48	05 34	17 55	05 27	18 02	05 20	18 10	05 12	18 17	05 04	18 26
21	05 42	17 50	05 35	17 57	05 28	18 04	05 20	18 12	05 12	18 21	05 03	18 29
26	05 44	17 51	05 36	17 59	05 28	18 07	05 20	18 15	05 11	18 24	05 02	18 33
Dec. 1	05 46	17 53	05 37	18 01	05 29	18 09	05 21	18 18	05 12	18 27	05 02	18 37
6	05 47	17 55	05 39	18 03	05 31	18 12	05 22	18 21	05 12	18 30	05 02	18 40
11	05 50	17 57	05 41	18 06	05 32	18 14	05 23	18 24	05 14	18 33	05 03	18 44
16	05 52	18 00	05 43	18 08	05 35	18 17	05 25	18 26	05 16	18 36	05 05	18 47
21	05 55	18 02	05 46	18 11	05 37	18 20	05 28	18 29	05 18	18 39	05 07	18 49
26	05 57	18 05	05 48	18 13	05 40	18 22	05 30	18 31	05 21	18 41	05 10	18 51
31	05 59	18 07	05 51	18 15	05 42	18 24	05 33	18 33	05 24	18 43	05 13	18 53

Local mean time. To obtain standard time of rise or set, see Table 5.

TABLE 4.-SUNRISE AND SUNSET, 2020

Date		30° S.		32° S.		34° S.		36° S.		38° S.		40° S.	
		Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.
Jan.	1	05 02	19 05	04 57	19 09	04 52	19 15	04 46	19 20	04 41	19 26	04 34	19 32
	6	05 06	19 05	05 01	19 10	04 56	19 15	04 51	19 20	04 45	19 26	04 39	19 32
	11	05 10	19 05	05 05	19 10	05 00	19 15	04 55	19 20	04 50	19 25	04 44	19 31
	16	05 14	19 05	05 09	19 09	05 05	19 14	05 00	19 19	04 55	19 24	04 49	19 29
	21	05 18	19 04	05 14	19 08	05 10	19 12	05 05	19 17	05 00	19 22	04 55	19 27
	26	05 23	19 02	05 19	19 06	05 15	19 10	05 10	19 14	05 06	19 18	05 01	19 23
	31	05 27	18 59	05 24	19 03	05 20	19 06	05 16	19 10	05 12	19 15	05 07	19 19
Feb.	5	05 32	18 56	05 28	18 59	05 25	19 03	05 21	19 06	05 17	19 10	05 13	19 14
	10	05 36	18 52	05 33	18 55	05 30	18 58	05 26	19 01	05 23	19 05	05 19	19 08
	15	05 40	18 48	05 37	18 50	05 35	18 53	05 32	18 56	05 29	18 59	05 25	19 02
	20	05 44	18 43	05 42	18 45	05 39	18 48	05 37	18 50	05 34	18 53	05 31	18 55
	25	05 48	18 38	05 46	18 40	05 44	18 42	05 42	18 44	05 40	18 46	05 37	18 48
Mar.	1	05 51	18 33	05 50	18 34	05 48	18 36	05 46	18 37	05 45	18 39	05 43	18 41
	6	05 55	18 27	05 54	18 28	05 52	18 29	05 51	18 31	05 50	18 32	05 48	18 33
	11	05 58	18 21	05 57	18 22	05 56	18 23	05 56	18 24	05 55	18 24	05 54	18 25
	16	06 01	18 15	06 01	18 16	06 00	18 16	06 00	18 16	06 00	18 17	05 59	18 17
	21	06 04	18 09	06 04	18 09	06 04	18 09	06 04	18 09	06 04	18 09	06 04	18 09
	26	06 07	18 03	06 08	18 03	06 08	18 02	06 08	18 02	06 09	18 02	06 09	18 01
	31	06 10	17 57	06 11	17 57	06 12	17 56	06 13	17 55	06 14	17 54	06 14	17 53
Apr.	5	06 13	17 51	06 14	17 50	06 16	17 49	06 17	17 48	06 18	17 47	06 19	17 45
	10	06 16	17 46	06 18	17 44	06 19	17 43	06 21	17 41	06 23	17 39	06 24	17 37
	15	06 19	17 40	06 21	17 38	06 23	17 36	06 25	17 34	06 27	17 32	06 29	17 30
	20	06 22	17 35	06 25	17 33	06 27	17 30	06 29	17 28	06 32	17 25	06 34	17 23
	25	06 25	17 30	06 28	17 27	06 31	17 25	06 33	17 22	06 36	17 19	06 39	17 16
	30	06 29	17 25	06 31	17 23	06 34	17 20	06 38	17 16	06 41	17 13	06 44	17 10
May.	5	06 32	17 21	06 35	17 18	06 38	17 15	06 42	17 11	06 45	17 08	06 49	17 04
	10	06 35	17 18	06 38	17 14	06 42	17 10	06 46	17 07	06 50	17 03	06 54	16 58
	15	06 38	17 14	06 42	17 11	06 46	17 07	06 50	17 03	06 54	16 58	06 59	16 54
	20	06 41	17 12	06 45	17 08	06 49	17 04	06 54	16 59	06 58	16 55	07 03	16 50
	25	06 44	17 10	06 48	17 05	06 53	17 01	06 57	16 56	07 02	16 52	07 07	16 46
	30	06 47	17 08	06 51	17 04	06 56	16 59	07 01	16 54	07 06	16 49	07 11	16 44
Jun.	4	06 49	17 07	06 54	17 03	06 59	16 58	07 04	16 53	07 09	16 48	07 15	16 42
	9	06 52	17 07	06 56	17 02	07 01	16 57	07 06	16 52	07 12	16 47	07 18	16 41
	14	06 54	17 07	06 58	17 02	07 03	16 57	07 09	16 52	07 14	16 47	07 20	16 41
	19	06 55	17 08	07 00	17 03	07 05	16 58	07 10	16 53	07 16	16 47	07 22	16 41
	24	06 56	17 09	07 01	17 04	07 06	16 59	07 11	16 54	07 17	16 48	07 23	16 43
	29	06 57	17 11	07 01	17 06	07 06	17 01	07 11	16 56	07 17	16 50	07 23	16 44
Jul.	4	06 56	17 13	07 01	17 08	07 06	17 03	07 11	16 58	07 16	16 53	07 22	16 47
	9	06 56	17 15	07 00	17 10	07 05	17 06	07 10	17 01	07 15	16 56	07 21	16 50
	14	06 55	17 18	06 59	17 13	07 03	17 09	07 08	17 04	07 13	16 59	07 19	16 54
	19	06 53	17 20	06 57	17 16	07 01	17 12	07 06	17 07	07 10	17 02	07 16	16 57
	24	06 50	17 23	06 54	17 19	06 58	17 15	07 03	17 11	07 07	17 06	07 12	17 02
	29	06 47	17 26	06 51	17 22	06 55	17 19	06 59	17 15	07 03	17 10	07 07	17 06
Aug.	3	06 44	17 29	06 47	17 26	06 51	17 22	06 54	17 18	06 58	17 15	07 02	17 10
	8	06 40	17 32	06 43	17 29	06 46	17 26	06 49	17 22	06 53	17 19	06 57	17 15
	13	06 35	17 35	06 38	17 32	06 41	17 29	06 44	17 26	06 47	17 23	06 50	17 20
	18	06 30	17 38	06 33	17 35	06 35	17 33	06 38	17 30	06 41	17 27	06 44	17 24
	23	06 25	17 40	06 27	17 38	06 29	17 36	06 32	17 34	06 34	17 32	06 37	17 29
	28	06 20	17 43	06 21	17 41	06 23	17 40	06 25	17 38	06 27	17 36	06 29	17 34
Sep.	2	06 14	17 46	06 15	17 44	06 17	17 43	06 18	17 41	06 20	17 40	06 21	17 38
	7	06 08	17 48	06 09	17 47	06 10	17 46	06 11	17 45	06 12	17 44	06 13	17 43
	12	06 02	17 51	06 02	17 50	06 03	17 50	06 04	17 49	06 04	17 48	06 05	17 48
	17	05 55	17 54	05 56	17 53	05 56	17 53	05 56	17 53	05 57	17 53	05 57	17 52
	22	05 49	17 56	05 49	17 57	05 49	17 57	05 49	17 57	05 49	17 57	05 49	17 57
	27	05 43	17 59	05 42	18 00	05 42	18 00	05 42	18 01	05 41	18 01	05 40	18 02
Oct.	2	05 37	18 02	05 36	18 03	05 35	18 04	05 34	18 05	05 33	18 06	05 32	18 07
	7	05 31	18 05	05 30	18 06	05 28	18 08	05 27	18 09	05 26	18 10	05 24	18 12
	12	05 25	18 08	05 23	18 10	05 22	18 11	05 20	18 13	05 18	18 15	05 16	18 17
	17	05 19	18 12	05 18	18 14	05 16	18 16	05 13	18 18	05 11	18 20	05 09	18 22
	22	05 14	18 15	05 12	18 17	05 10	18 20	05 07	18 22	05 04	18 25	05 02	18 28
	27	05 09	18 19	05 07	18 21	05 04	18 24	05 01	18 27	04 58	18 30	04 55	18 33
Nov.	1	05 05	18 23	05 02	18 26	04 59	18 29	04 56	18 32	04 52	18 36	04 49	18 39
	6	05 01	18 27	04 58	18 30	04 54	18 33	04 51	18 37	04 47	18 41	04 43	18 45
	11	04 58	18 31	04 54	18 34	04 50	18 38	04 47	18 42	04 42	18 46	04 38	18 51
	16	04 55	18 35	04 51	18 39	04 47	18 43	04 43	18 47	04 38	18 52	04 33	18 57
	21	04 53	18 39	04 49	18 43	04 45	18 48	04 40	18 52	04 35	18 57	04 30	19 03
	26	04 52	18 43	04 47	18 48	04 43	18 52	04 38	18 57	04 33	19 03	04 27	19 08
Dec.	1	04 51	18 47	04 47	18 52	04 42	18 57	04 37	19 02	04 31	19 08	04 25	19 13
	6	04 51	18 51	04 47	18 56	04 42	19 01	04 36	19 06	04 31	19 12	04 25	19 18
	11	04 52	18 55	04 47	19 00	04 42	19 05	04 37	19 10	04 31	19 16	04 25	19 22
	16	04 54	18 58	04 49	19 03	04 43	19 08	04 38	19 14	04 32	19 20	04 26	19 26
	21	04 56	19 01	04 51	19 06	04 46	19 11	04 40	19 17	04 34	19 23	04 28	19 29
	26	04 59	19 03	04 54	19 08	04 48	19 13	04 43	19 19	04 37	19 25	04 31	19 31
	31	05 02	19 04	04 57	19 09	04 52	19 15	04 46	19 20	04 40	19 26	04 34	19 32

Local mean time. To obtain standard time of rise or set, see Table 5.

TABLE 4.-SUNRISE AND SUNSET, 2020

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Date	42° S.		44° S.		46° S.		48° S.		50° S.		52° S.	
	Rise h. m.	Set h. m.										
Jan. 1	04 28	19 39	04 21	19 46	04 13	19 54	04 04	20 02	03 55	20 12	03 44	20 22
6	04 32	19 39	04 25	19 46	04 18	19 53	04 09	20 01	04 00	20 11	03 50	20 21
11	04 38	19 37	04 31	19 44	04 24	19 51	04 16	19 59	04 07	20 08	03 57	20 18
16	04 43	19 35	04 37	19 42	04 30	19 49	04 22	19 56	04 14	20 04	04 05	20 14
21	04 49	19 32	04 43	19 38	04 37	19 45	04 30	19 52	04 22	20 00	04 13	20 08
26	04 56	19 28	04 50	19 34	04 44	19 40	04 38	19 47	04 30	19 54	04 22	20 02
31	05 02	19 24	04 57	19 29	04 52	19 34	04 46	19 40	04 39	19 47	04 32	19 54
Feb. 5	05 09	19 18	05 04	19 23	04 59	19 28	04 54	19 33	04 48	19 39	04 41	19 46
10	05 15	19 12	05 11	19 16	05 07	19 21	05 02	19 26	04 57	19 31	04 51	19 36
15	05 22	19 06	05 18	19 09	05 14	19 13	05 10	19 17	05 05	19 22	05 00	19 27
20	05 28	18 58	05 25	19 01	05 22	19 05	05 18	19 08	05 14	19 12	05 10	19 17
25	05 35	18 51	05 32	18 53	05 29	18 56	05 26	18 59	05 23	19 02	05 19	19 06
Mar. 1	05 41	18 43	05 39	18 45	05 36	18 47	05 34	18 50	05 31	18 52	05 28	18 55
6	05 47	18 35	05 45	18 36	05 44	18 38	05 42	18 40	05 40	18 42	05 38	18 44
11	05 53	18 26	05 52	18 27	05 51	18 28	05 49	18 30	05 48	18 31	05 46	18 32
16	05 59	18 18	05 58	18 18	05 57	18 19	05 57	18 19	05 56	18 20	05 55	18 21
21	06 04	18 09	06 04	18 09	06 04	18 09	06 04	18 09	06 04	18 09	06 04	18 09
26	06 10	18 01	06 10	18 00	06 11	18 00	06 11	17 59	06 12	17 58	06 13	17 58
31	06 15	17 52	06 16	17 51	06 17	17 50	06 19	17 49	06 20	17 47	06 21	17 46
Apr. 5	06 21	17 44	06 22	17 42	06 24	17 40	06 26	17 39	06 28	17 37	06 30	17 35
10	06 26	17 35	06 28	17 33	06 30	17 31	06 33	17 29	06 35	17 26	06 38	17 24
15	06 32	17 28	06 34	17 25	06 37	17 22	06 40	17 19	06 43	17 16	06 46	17 13
20	06 37	17 20	06 40	17 17	06 43	17 14	06 47	17 10	06 51	17 06	06 55	17 02
25	06 43	17 13	06 46	17 09	06 50	17 05	06 54	17 01	06 58	16 57	07 03	16 52
30	06 48	17 06	06 52	17 02	06 56	16 58	07 01	16 53	07 06	16 48	07 11	16 43
May. 5	06 53	17 00	06 58	16 55	07 03	16 50	07 08	16 45	07 13	16 40	07 19	16 33
10	06 59	16 54	07 03	16 49	07 09	16 44	07 14	16 38	07 20	16 32	07 27	16 25
15	07 04	16 49	07 09	16 43	07 15	16 38	07 21	16 32	07 27	16 25	07 35	16 18
20	07 08	16 44	07 14	16 39	07 20	16 33	07 27	16 26	07 34	16 19	07 42	16 11
25	07 13	16 41	07 19	16 35	07 25	16 28	07 32	16 21	07 40	16 14	07 48	16 05
30	07 17	16 38	07 23	16 32	07 30	16 25	07 38	16 17	07 46	16 09	07 54	16 00
Jun. 4	07 21	16 36	07 27	16 29	07 34	16 22	07 42	16 15	07 50	16 06	08 00	15 57
9	07 24	16 35	07 31	16 28	07 38	16 21	07 46	16 13	07 54	16 04	08 04	15 55
14	07 26	16 34	07 33	16 28	07 40	16 20	07 49	16 12	07 57	16 03	08 07	15 54
19	07 28	16 35	07 35	16 28	07 42	16 21	07 50	16 13	07 59	16 04	08 09	15 54
24	07 29	16 36	07 36	16 29	07 43	16 22	07 51	16 14	08 00	16 05	08 10	15 55
29	07 29	16 38	07 36	16 31	07 43	16 24	07 51	16 16	08 00	16 07	08 10	15 58
Jul. 4	07 28	16 41	07 35	16 34	07 42	16 27	07 50	16 19	07 58	16 11	08 08	16 01
9	07 27	16 44	07 33	16 38	07 40	16 31	07 48	16 23	07 56	16 15	08 05	16 06
14	07 24	16 48	07 30	16 42	07 37	16 35	07 44	16 28	07 52	16 20	08 01	16 11
19	07 21	16 52	07 27	16 46	07 33	16 40	07 40	16 33	07 48	16 26	07 56	16 17
24	07 17	16 56	07 22	16 51	07 28	16 45	07 35	16 39	07 42	16 32	07 50	16 24
29	07 12	17 01	07 17	16 56	07 23	16 51	07 29	16 45	07 35	16 38	07 42	16 31
Aug. 3	07 07	17 06	07 11	17 01	07 16	16 56	07 22	16 51	07 28	16 45	07 34	16 39
8	07 01	17 11	07 05	17 07	07 09	17 02	07 14	16 57	07 20	16 52	07 26	16 46
13	06 54	17 16	06 58	17 12	07 02	17 08	07 06	17 04	07 11	16 59	07 16	16 54
18	06 47	17 21	06 50	17 18	06 54	17 14	06 58	17 11	07 02	17 06	07 06	17 02
23	06 39	17 26	06 42	17 24	06 45	17 20	06 49	17 17	06 52	17 14	06 56	17 10
28	06 31	17 31	06 34	17 29	06 36	17 27	06 39	17 24	06 42	17 21	06 45	17 18
Sep. 2	06 23	17 37	06 25	17 35	06 27	17 33	06 29	17 31	06 32	17 28	06 34	17 26
7	06 15	17 42	06 16	17 40	06 18	17 39	06 19	17 37	06 21	17 36	06 23	17 34
12	06 06	17 47	06 07	17 46	06 08	17 45	06 09	17 44	06 10	17 43	06 11	17 42
17	05 57	17 52	05 58	17 52	05 58	17 51	05 59	17 51	05 59	17 50	06 00	17 50
22	05 49	17 57	05 49	17 57	05 48	17 58	05 48	17 58	05 48	17 58	05 48	17 58
27	05 40	18 02	05 39	18 03	05 39	18 04	05 38	18 05	05 37	18 06	05 36	18 06
Oct. 2	05 31	18 08	05 30	18 09	05 29	18 10	05 28	18 12	05 26	18 13	05 25	18 15
7	05 23	18 13	05 21	18 15	05 19	18 17	05 17	18 19	05 15	18 21	05 13	18 23
12	05 14	18 19	05 12	18 21	05 10	18 24	05 07	18 26	05 05	18 29	05 02	18 32
17	05 06	18 25	05 04	18 28	05 01	18 31	04 58	18 34	04 54	18 37	04 51	18 41
22	04 59	18 31	04 56	18 34	04 52	18 38	04 48	18 41	04 44	18 46	04 40	18 50
27	04 51	18 37	04 48	18 41	04 44	18 45	04 40	18 49	04 35	18 54	04 30	18 59
Nov. 1	04 45	18 43	04 41	18 47	04 36	18 52	04 31	18 57	04 26	19 02	04 20	19 08
6	04 39	18 50	04 34	18 54	04 29	18 59	04 23	19 05	04 17	19 11	04 11	19 18
11	04 33	18 56	04 28	19 01	04 22	19 07	04 16	19 13	04 10	19 19	04 02	19 27
16	04 28	19 02	04 23	19 08	04 17	19 14	04 10	19 21	04 03	19 28	03 55	19 36
21	04 24	19 08	04 18	19 14	04 12	19 21	04 05	19 28	03 57	19 36	03 48	19 45
26	04 21	19 14	04 15	19 21	04 08	19 28	04 00	19 35	03 52	19 44	03 43	19 53
Dec. 1	04 19	19 20	04 12	19 26	04 05	19 34	03 57	19 42	03 48	19 51	03 39	20 00
6	04 18	19 25	04 11	19 32	04 03	19 39	03 55	19 48	03 46	19 57	03 36	20 07
11	04 18	19 29	04 11	19 36	04 03	19 44	03 54	19 53	03 45	20 02	03 34	20 13
16	04 19	19 33	04 12	19 40	04 04	19 48	03 55	19 57	03 45	20 07	03 34	20 17
21	04 21	19 36	04 14	19 43	04 06	19 51	03 57	20 00	03 47	20 10	03 36	20 20
26	04 24	19 38	04 16	19 45	04 09	19 53	04 00	20 02	03 50	20 11	03 39	20 22
31	04 28	19 39	04 20	19 46	04 13	19 54	04 04	20 02	03 54	20 12	03 44	20 22

Local mean time. To obtain standard time of rise or set, see Table 5.

Date	54° S.		56° S.		58° S.		60° S.	
	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.	Rise h. m.	Set h. m.
Jan. 1	03 32	20 34	03 18	20 48	03 02	21 04	02 42	21 24
6	03 38	20 32	03 25	20 45	03 09	21 01	02 51	21 20
11	03 46	20 29	03 33	20 41	03 18	20 56	03 01	21 13
16	03 54	20 24	03 42	20 36	03 29	20 49	03 12	21 05
21	04 04	20 18	03 53	20 29	03 40	20 41	03 25	20 56
26	04 13	20 10	04 03	20 20	03 52	20 32	03 38	20 45
31	04 24	20 02	04 14	20 11	04 04	20 21	03 52	20 33
Feb. 5	04 34	19 53	04 26	20 01	04 16	20 10	04 06	20 20
10	04 44	19 43	04 37	19 50	04 29	19 58	04 20	20 07
15	04 55	19 32	04 48	19 38	04 41	19 45	04 33	19 53
20	05 05	19 21	05 00	19 26	04 54	19 32	04 47	19 39
25	05 15	19 10	05 11	19 14	05 06	19 19	05 00	19 24
Mar. 1	05 25	18 58	05 22	19 01	05 18	19 05	05 13	19 10
6	05 35	18 46	05 32	18 49	05 29	18 51	05 26	18 55
11	05 45	18 34	05 43	18 36	05 41	18 37	05 39	18 40
16	05 54	18 21	05 53	18 22	05 52	18 23	05 51	18 24
21	06 04	18 09	06 04	18 09	06 04	18 09	06 03	18 09
26	06 13	17 57	06 14	17 56	06 15	17 55	06 16	17 54
31	06 22	17 45	06 24	17 43	06 26	17 41	06 28	17 39
Apr. 5	06 32	17 33	06 34	17 30	06 37	17 27	06 40	17 24
10	06 41	17 21	06 44	17 17	06 48	17 14	06 52	17 09
15	06 50	17 09	06 54	17 05	06 59	17 00	07 04	16 55
20	06 59	16 58	07 04	16 53	07 10	16 47	07 16	16 41
25	07 08	16 47	07 14	16 41	07 20	16 34	07 28	16 27
30	07 17	16 36	07 24	16 30	07 31	16 22	07 40	16 14
May. 5	07 26	16 27	07 33	16 19	07 42	16 11	07 52	16 01
10	07 35	16 18	07 43	16 09	07 52	16 00	08 03	15 49
15	07 43	16 09	07 52	16 00	08 02	15 50	08 14	15 38
20	07 51	16 02	08 01	15 52	08 12	15 41	08 25	15 28
25	07 58	15 56	08 09	15 45	08 21	15 33	08 35	15 19
30	08 04	15 51	08 16	15 39	08 29	15 26	08 44	15 11
Jun. 4	08 10	15 47	08 22	15 35	08 36	15 21	08 52	15 05
9	08 15	15 44	08 27	15 32	08 41	15 17	08 58	15 00
14	08 18	15 43	08 31	15 30	08 45	15 15	09 03	14 58
19	08 20	15 43	08 33	15 30	08 48	15 15	09 05	14 58
24	08 21	15 44	08 34	15 31	08 49	15 17	09 06	14 59
29	08 21	15 47	08 33	15 34	08 48	15 20	09 05	15 03
Jul. 4	08 19	15 51	08 31	15 39	08 45	15 25	09 01	15 08
9	08 15	15 56	08 27	15 44	08 40	15 31	08 56	15 15
14	08 11	16 02	08 22	15 51	08 34	15 38	08 49	15 23
19	08 05	16 08	08 15	15 58	08 27	15 46	08 41	15 32
24	07 58	16 15	08 08	16 06	08 19	15 55	08 31	15 42
29	07 50	16 23	07 59	16 14	08 09	16 04	08 21	15 53
Aug. 3	07 42	16 31	07 50	16 23	07 59	16 14	08 09	16 04
8	07 32	16 40	07 39	16 33	07 47	16 25	07 57	16 15
13	07 22	16 48	07 28	16 42	07 36	16 35	07 44	16 27
18	07 11	16 57	07 17	16 52	07 23	16 45	07 30	16 38
23	07 00	17 06	07 05	17 01	07 10	16 56	07 16	16 50
28	06 49	17 14	06 53	17 11	06 57	17 06	07 02	17 02
Sep. 2	06 37	17 23	06 40	17 20	06 43	17 17	06 47	17 13
7	06 25	17 32	06 27	17 30	06 29	17 27	06 32	17 25
12	06 12	17 41	06 14	17 39	06 15	17 38	06 17	17 36
17	06 00	17 50	06 01	17 49	06 01	17 49	06 02	17 48
22	05 48	17 59	05 47	17 59	05 47	17 59	05 47	18 00
27	05 35	18 08	05 34	18 09	05 33	18 10	05 32	18 11
Oct. 2	05 23	18 17	05 21	18 19	05 19	18 21	05 16	18 23
7	05 11	18 26	05 08	18 29	05 05	18 32	05 01	18 36
12	04 58	18 35	04 55	18 39	04 51	18 43	04 46	18 48
17	04 47	18 45	04 42	18 50	04 37	18 55	04 32	19 01
22	04 35	18 55	04 30	19 00	04 24	19 07	04 17	19 14
27	04 24	19 05	04 18	19 11	04 11	19 18	04 03	19 27
Nov. 1	04 13	19 15	04 06	19 22	03 58	19 31	03 49	19 40
6	04 04	19 25	03 55	19 33	03 46	19 43	03 36	19 53
11	03 54	19 35	03 45	19 44	03 35	19 55	03 23	20 07
16	03 46	19 45	03 36	19 55	03 24	20 07	03 11	20 20
21	03 39	19 54	03 28	20 06	03 15	20 18	03 00	20 33
26	03 32	20 03	03 21	20 15	03 07	20 29	02 51	20 46
Dec. 1	03 28	20 12	03 15	20 24	03 00	20 39	02 43	20 57
6	03 24	20 19	03 11	20 32	02 55	20 48	02 37	21 07
11	03 22	20 25	03 09	20 39	02 52	20 55	02 33	21 15
16	03 22	20 30	03 08	20 44	02 51	21 01	02 31	21 21
21	03 24	20 33	03 10	20 47	02 53	21 04	02 32	21 25
26	03 27	20 34	03 13	20 48	02 56	21 05	02 36	21 25
31	03 32	20 34	03 18	20 48	03 02	21 04	02 42	21 24

Local mean time. To obtain standard time of rise or set, see Table 5.

TABLE 5.—REDUCTION OF LOCAL MEAN TIME TO STANDARD TIME

<i>Difference of longitude between local and standard meridian</i>	<i>Correction to local mean time to obtain standard time</i>	<i>Difference of longitude between local and standard meridian</i>	<i>Correction to local mean time to obtain standard time</i>	<i>Difference of longitude between local and standard meridian</i>	<i>Correction to local mean time to obtain standard time</i>
° ' ° '	Minutes	° ' ° '	Minutes	°	Hours
0 00 to 0 07	0	7 23 to 7 37	30	15	1
0 08 to 0 22	1	7 38 to 7 52	31	30	2
0 23 to 0 37	2	7 53 to 8 07	32	45	3
0 38 to 0 52	3	8 08 to 8 22	33	60	4
0 53 to 1 07	4	8 23 to 8 37	34	75	5
1 08 to 1 22	5	8 38 to 8 52	35	90	6
1 23 to 1 37	6	8 53 to 9 07	36	105	7
1 38 to 1 52	7	9 08 to 9 22	37	120	8
1 53 to 2 07	8	9 23 to 9 37	38	135	9
2 08 to 2 22	9	9 38 to 9 52	39	150	10
2 23 to 2 37	10	9 53 to 10 07	40	165	11
2 38 to 2 52	11	10 08 to 10 22	41	180	12
2 53 to 3 07	12	10 23 to 10 37	42		
3 08 to 3 22	13	10 38 to 10 52	43		
3 23 to 3 37	14	10 53 to 11 07	44		
3 38 to 3 52	15	11 08 to 11 22	45		
3 53 to 4 07	16	11 23 to 11 37	46		
4 08 to 4 22	17	11 38 to 11 52	47		
4 23 to 4 37	18	11 53 to 12 07	48		
4 38 to 4 52	19	12 08 to 12 22	49		
4 53 to 5 07	20	12 23 to 12 37	50		
5 08 to 5 22	21	12 38 to 12 52	51		
5 23 to 5 37	22	12 53 to 13 07	52		
5 38 to 5 52	23	13 08 to 13 22	53		
5 53 to 6 07	24	13 23 to 13 37	54		
6 08 to 6 22	25	13 38 to 13 52	55		
6 23 to 6 37	26	13 53 to 14 07	56		
6 38 to 6 52	27	14 08 to 14 22	57		
6 53 to 7 07	28	14 23 to 14 37	58		
7 08 to 7 22	29	14 38 to 14 52	59		

If local meridian is east of standard meridian, subtract the correction from local time.

If local meridian is west of standard meridian, add the correction to local time.

For differences of longitude less than 15°, use the first part of the table. For greater differences use both parts thus: 47° 23' is equivalent to 45°+ 2° 23', the correction for 45° is 3 hours, the correction for 2° 23' is 10 minutes; therefore the total correction for the difference in longitude 47° 23' is 3 hours and 10 minutes.

TABLE 6.—MOONRISE AND MOONSET

EXPLANATION OF TABLE

This table gives the time of rising and setting of the Moon's upper limb for every day in the year, at each of the following places:

Boston, Massachusetts	New York, New York	Baltimore, Maryland
Washington, D.C.	Charleston, South Carolina	Savannah, Georgia
Galveston, Texas	Panama Canal	

All of Table 6 was supplied by the Nautical Almanac Office of the United States Naval Observatory. Since Baltimore, Md., and Washington, D.C., are comparatively near to each other, a single table was compiled for a point midway between the two cities. The difference in time of moonrise and moonset at the point selected and at either city may vary between 0 and 2 minutes. In a similar way, a single table was made for Charleston, S.C., and Savannah, Ga.; and the difference in time of the moonrise or moonset at the point selected and at either city may vary between 0 and 4 minutes, which differences are of no practical importance in this table. For the Panama Canal the times were computed for a point about midway between the two ends and are applicable to the entire canal and are accurate to within a minute or two.

TABLE 6.-MOONRISE AND MOONSET, 2020

Boston, MA

Day	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		Day
	Rise h m	Set h m											
1	1114	2249	1050	....	0947	....	1035	0121	1141	0141	1422	0150	1
2	1137	2348	1118	0035	1021	0028	1137	0214	1255	0217	1537	0218	2
3	1200	....	1149	0138	1101	0131	1246	0301	1410	0250	1653	0248	3
4	1224	0047	1226	0242	1150	0232	1400	0343	1526	0320	1809	0322	4
5	1250	0148	1312	0346	1249	0330	1517	0419	1643	0349	1923	0401	5
6	1320	0251	1407	0448	1357	0423	1635	0451	1801	0419	2031	0447	6
7	1354	0355	1512	0545	1511	0509	1753	0522	1919	0451	2130	0540	7
8	1436	0501	1624	0636	1628	0549	1912	0552	2035	0528	2219	0640	8
9	1527	0605	1741	0719	1747	0624	2030	0624	2146	0611	2300	0743	9
10	1628	0706	1858	0757	1906	0656	2146	0659	2249	0700	2333	0848	10
11	1736	0800	2015	0830	2023	0727	2258	0738	2342	0757	....	0952	11
12	1849	0846	2130	0900	2140	0757	....	0823	....	0857	0001	1054	12
13	2004	0926	2244	0930	2254	0830	0003	0914	0026	1000	0026	1154	13
14	2119	1000	2357	1000	....	0905	0100	1011	0102	1103	0048	1253	14
15	2232	1031	....	1032	0005	0946	0147	1111	0132	1205	0110	1353	15
16	2344	1059	0107	1108	0112	1032	0227	1212	0158	1305	0133	1453	16
17	....	1128	0215	1149	0212	1123	0300	1314	0222	1405	0157	1554	17
18	0055	1158	0318	1236	0304	1220	0328	1414	0244	1504	0224	1657	18
19	0205	1230	0415	1328	0348	1319	0353	1514	0306	1603	0255	1800	19
20	0315	1308	0504	1426	0425	1420	0416	1613	0329	1704	0333	1903	20
21	0421	1350	0546	1526	0456	1521	0439	1712	0354	1806	0418	2002	21
22	0523	1440	0622	1627	0523	1621	0501	1812	0423	1909	0512	2055	22
23	0619	1535	0652	1728	0548	1721	0525	1913	0456	2011	0614	2142	23
24	0706	1634	0719	1829	0611	1820	0551	2014	0536	2112	0722	2221	24
25	0747	1735	0743	1928	0633	1919	0621	2117	0624	2209	0833	2256	25
26	0821	1837	0806	2027	0656	2019	0656	2218	0720	2259	0945	2326	26
27	0850	1938	0829	2126	0721	2119	0738	2317	0823	2342	1058	2354	27
28	0916	2038	0853	2225	0748	2221	0828	....	0931	....	1210	....	28
29	0940	2137	0918	2326	0820	2322	0926	0011	1042	0019	1323	0021	29
30	1003	2235	....	....	0857	....	1031	0059	1155	0052	1437	0049	30
31	1026	2335	....	....	0942	0023	....	....	1308	0122	....	....	31

Day	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		Day
	Rise h m	Set h m											
1	1551	0120	1802	0213	1831	0414	1746	0512	1725	0705	1712	0801	1
2	1704	0156	1849	0312	1856	0518	1808	0611	1755	0806	1800	0859	2
3	1813	0238	1928	0416	1919	0619	1830	0711	1831	0907	1857	0952	3
4	1916	0327	2001	0521	1941	0720	1855	0811	1914	1007	1959	1038	4
5	2010	0424	2029	0626	2004	0819	1922	0912	2005	1103	2107	1118	5
6	2054	0526	2053	0729	2027	0919	1954	1013	2103	1154	2216	1152	6
7	2131	0631	2116	0830	2052	1019	2032	1114	2208	1238	2327	1222	7
8	2201	0736	2138	0930	2121	1120	2118	1212	2317	1316	....	1250	8
9	2228	0840	2201	1029	2156	1221	2212	1307	....	1350	0039	1316	9
10	2251	0941	2225	1129	2238	1322	2314	1357	0029	1420	0153	1343	10
11	2314	1042	2252	1229	2328	1421	....	1440	0143	1448	0308	1412	11
12	2336	1141	2324	1331	....	1515	0023	1518	0259	1516	0426	1446	12
13	2359	1240	....	1433	0027	1604	0136	1551	0416	1545	0545	1526	13
14	....	1341	0002	1535	0134	1646	0252	1621	0535	1617	0701	1615	14
15	0024	1443	0048	1633	0247	1722	0409	1650	0656	1655	0812	1712	15
16	0054	1546	0143	1726	0404	1755	0528	1719	0815	1740	0912	1817	16
17	0128	1649	0248	1813	0521	1825	0647	1750	0928	1833	1001	1926	17
18	0210	1750	0359	1853	0639	1854	0807	1825	1032	1933	1040	2034	18
19	0301	1846	0514	1927	0757	1923	0926	1906	1125	2039	1112	2141	19
20	0401	1937	0630	1958	0915	1955	1040	1954	1208	2145	1138	2244	20
21	0508	2020	0746	2027	1031	2032	1147	2048	1242	2251	1202	2346	21
22	0620	2056	0902	2055	1145	2114	1244	2149	1311	2355	1223	....	22
23	0734	2128	1016	2124	1254	2203	1330	2253	1335	....	1245	0046	23
24	0848	2157	1131	2157	1355	2258	1408	2358	1358	0056	1307	0146	24
25	1001	2225	1244	2234	1447	2359	1440	....	1419	0157	1331	0246	25
26	1114	2253	1355	2317	1530	....	1506	0102	1440	0256	1358	0347	26
27	1227	2323	1500	....	1605	0102	1530	0204	1503	0356	1430	0449	27
28	1340	2356	1558	0007	1635	0206	1552	0305	1528	0456	1508	0551	28
29	1452	....	1647	0104	1701	0309	1613	0404	1557	0558	1555	0651	29
30	1602	0035	1728	0206	1724	0411	1635	0504	1631	0700	1649	0747	30
31	1706	0120	1802	0310	....	....	1659	0604	....	....	1751	0836	31

Local Standard Time. Not adjusted for Daylight Savings Time.

New York, NY

Day	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		Day
	Rise h m	Set h m											
1	1125	2302	1105	....	1003	....	1053	0128	1158	0149	1434	0202	1
2	1149	....	1133	0045	1037	0036	1154	0221	1310	0226	1548	0231	2
3	1213	0000	1205	0146	1119	0138	1303	0309	1424	0300	1702	0302	3
4	1238	0059	1243	0249	1208	0239	1416	0351	1538	0331	1817	0337	4
5	1305	0158	1330	0353	1307	0337	1532	0428	1654	0401	1930	0418	5
6	1335	0300	1425	0454	1414	0430	1648	0502	1811	0433	2037	0504	6
7	1411	0403	1530	0552	1527	0517	1805	0534	1927	0506	2136	0558	7
8	1454	0508	1641	0643	1644	0558	1923	0605	2042	0545	2226	0658	8
9	1545	0612	1757	0728	1801	0634	2039	0638	2152	0628	2307	0801	9
10	1646	0713	1913	0806	1918	0707	2154	0714	2255	0719	2341	0905	10
11	1753	0807	2028	0840	2035	0739	2305	0755	2348	0815	....	1007	11
12	1906	0854	2142	0912	2150	0811	....	0841	....	0915	0010	1108	12
13	2019	0935	2255	0943	2303	0845	0010	0932	0033	1017	0036	1208	13
14	2133	1010	....	1014	....	0922	0106	1029	0110	1119	0100	1306	14
15	2245	1042	0006	1047	0013	1003	0154	1128	0141	1220	0123	1404	15
16	2355	1112	0116	1124	0119	1050	0234	1229	0208	1320	0146	1503	16
17	....	1141	0222	1206	0218	1141	0308	1330	0233	1418	0211	1603	17
18	0105	1212	0325	1254	0310	1238	0338	1429	0256	1516	0240	1705	18
19	0215	1246	0421	1346	0355	1337	0404	1528	0319	1614	0312	1808	19
20	0323	1324	0511	1444	0432	1437	0428	1626	0343	1714	0350	1909	20
21	0429	1408	0554	1543	0505	1537	0451	1724	0409	1815	0436	2008	21
22	0530	1458	0630	1644	0533	1636	0514	1823	0439	1917	0531	2102	22
23	0625	1553	0701	1744	0558	1734	0539	1922	0513	2019	0632	2149	23
24	0713	1651	0729	1843	0622	1832	0606	2023	0554	2119	0739	2229	24
25	0754	1752	0754	1941	0646	1930	0637	2124	0642	2215	0849	2305	25
26	0829	1853	0818	2039	0710	2029	0713	2225	0738	2305	1000	2336	26
27	0900	1953	0842	2137	0735	2128	0756	2323	0841	2350	1111	....	27
28	0926	2051	0906	2235	0804	2229	0846	....	0948	....	1223	0005	28
29	0951	2149	0933	2335	0836	2330	0944	0017	1058	0028	1334	0034	29
30	1015	2247	....	....	0914	....	1049	0106	1209	0102	1446	0103	30
31	1039	2345	....	....	0959	0030	....	....	1321	0132	....	....	31

Day	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		Day
	Rise h m	Set h m											
1	1559	0136	1808	0231	1840	0430	1758	0525	1741	0714	1730	0808	1
2	1711	0212	1856	0331	1906	0532	1821	0623	1812	0814	1819	0905	2
3	1820	0255	1936	0434	1931	0633	1844	0722	1849	0915	1915	0958	3
4	1922	0345	2009	0538	1954	0732	1910	0821	1932	1014	2017	1045	4
5	2016	0442	2038	0641	2017	0831	1938	0920	2023	1109	2123	1125	5
6	2101	0544	2104	0743	2041	0929	2011	1021	2121	1200	2232	1201	6
7	2139	0648	2128	0843	2108	1028	2050	1120	2225	1245	2342	1232	7
8	2210	0752	2151	0942	2138	1128	2136	1219	2333	1324	....	1300	8
9	2238	0855	2214	1040	2213	1229	2231	1313	....	1359	0052	1328	9
10	2302	0955	2240	1139	2256	1329	2332	1403	0044	1430	0205	1357	10
11	2326	1054	2308	1238	2346	1427	....	1447	0157	1459	0319	1427	11
12	2349	1153	2340	1339	....	1521	0040	1526	0311	1528	0435	1502	12
13	....	1251	....	1441	0045	1610	0152	1600	0427	1559	0553	1544	13
14	0013	1351	0019	1542	0152	1653	0307	1632	0545	1633	0708	1633	14
15	0039	1451	0106	1640	0304	1731	0423	1702	0704	1711	0818	1731	15
16	0110	1553	0202	1733	0419	1805	0540	1733	0822	1757	0918	1836	16
17	0145	1656	0306	1820	0535	1836	0658	1805	0934	1851	1007	1943	17
18	0228	1756	0416	1901	0652	1906	0816	1841	1038	1952	1047	2051	18
19	0319	1853	0530	1937	0808	1937	0934	1923	1132	2057	1120	2156	19
20	0419	1943	0645	2009	0924	2011	1047	2012	1215	2203	1148	2259	20
21	0525	2027	0759	2039	1040	2048	1153	2107	1250	2307	1212	2359	21
22	0636	2105	0913	2108	1153	2131	1250	2208	1320	....	1235	....	22
23	0749	2138	1027	2139	1300	2221	1337	2311	1346	0010	1258	0058	23
24	0902	2208	1140	2213	1401	2316	1416	....	1409	0110	1321	0157	24
25	1014	2237	1252	2251	1453	....	1448	0015	1431	0209	1346	0256	25
26	1125	2306	1402	2335	1537	0017	1516	0117	1454	0308	1414	0356	26
27	1237	2337	1506	....	1613	0119	1541	0218	1517	0406	1447	0457	27
28	1349	....	1604	0026	1644	0222	1603	0318	1544	0506	1526	0558	28
29	1500	0012	1653	0123	1711	0324	1626	0417	1613	0606	1613	0657	29
30	1608	0052	1735	0224	1735	0425	1649	0515	1648	0707	1708	0753	30
31	1712	0138	1810	0327	....	....	1713	0614	....	....	1809	0842	31

Local Standard Time. Not adjusted for Daylight Savings Time.

Baltimore/Washington

Day	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		Day
	Rise h m	Set h m											
1	1135	2315	1118	....	1018	....	1110	0134	1213	0156	1445	0213	1
2	1200	....	1147	0054	1053	0044	1211	0227	1324	0234	1558	0244	2
3	1225	0012	1220	0155	1135	0145	1319	0315	1437	0309	1711	0316	3
4	1251	0109	1300	0257	1225	0245	1431	0358	1550	0341	1825	0352	4
5	1319	0208	1346	0359	1324	0343	1546	0437	1705	0413	1937	0434	5
6	1350	0309	1442	0501	1431	0436	1701	0512	1820	0446	2043	0521	6
7	1427	0411	1546	0558	1543	0524	1817	0545	1936	0521	2142	0615	7
8	1510	0515	1657	0650	1658	0606	1933	0618	2049	0600	2232	0715	8
9	1602	0619	1812	0735	1815	0644	2048	0652	2159	0645	2314	0818	9
10	1703	0719	1927	0815	1930	0718	2202	0729	2301	0736	2349	0921	10
11	1810	0814	2041	0850	2045	0751	2312	0811	2355	0832	....	1022	11
12	1921	0902	2154	0923	2159	0824	....	0857	....	0932	0019	1122	12
13	2034	0943	2305	0955	2311	0859	0016	0950	0040	1034	0046	1220	13
14	2146	1019	....	1028	....	0937	0112	1046	0117	1135	0110	1318	14
15	2257	1052	0015	1102	0020	1019	0201	1145	0149	1235	0135	1415	15
16	....	1123	0123	1140	0125	1106	0241	1245	0217	1333	0159	1513	16
17	0006	1154	0229	1223	0224	1158	0316	1345	0243	1430	0225	1612	17
18	0115	1226	0331	1310	0316	1254	0346	1443	0307	1527	0254	1713	18
19	0223	1301	0428	1403	0401	1353	0413	1541	0331	1625	0328	1815	19
20	0330	1340	0517	1500	0440	1452	0438	1638	0356	1723	0407	1916	20
21	0435	1425	0600	1559	0513	1551	0502	1735	0423	1823	0453	2014	21
22	0536	1514	0637	1659	0542	1650	0527	1833	0454	1924	0548	2108	22
23	0632	1609	0710	1758	0608	1747	0553	1931	0529	2025	0649	2156	23
24	0720	1708	0738	1856	0633	1844	0621	2031	0611	2125	0755	2237	24
25	0801	1808	0804	1953	0658	1941	0653	2131	0659	2221	0905	2313	25
26	0837	1908	0829	2050	0723	2039	0730	2231	0755	2312	1014	2346	26
27	0908	2007	0854	2147	0749	2137	0813	2330	0857	2357	1124	....	27
28	0936	2104	0919	2245	0818	2237	0903	....	1004	....	1234	0016	28
29	1002	2201	0947	2344	0852	2337	1001	0024	1113	0036	1344	0046	29
30	1027	2258	....	....	0931	....	1105	0113	1223	0110	1456	0117	30
31	1052	2356	....	....	1016	0036	....	....	1334	0142	....	....	31

Day	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		Day
	Rise h m	Set h m											
1	1607	0150	1814	0249	1849	0445	1809	0537	1756	0722	1747	0814	1
2	1718	0228	1902	0348	1916	0546	1833	0635	1828	0822	1836	0911	2
3	1826	0312	1943	0450	1941	0646	1858	0732	1905	0921	1932	1004	3
4	1928	0402	2018	0554	2005	0744	1924	0830	1949	1020	2034	1051	4
5	2022	0459	2047	0656	2029	0842	1953	0929	2040	1115	2139	1132	5
6	2108	0601	2114	0757	2055	0939	2027	1028	2138	1206	2247	1209	6
7	2146	0704	2139	0856	2122	1037	2107	1127	2242	1251	2355	1241	7
8	2219	0807	2203	0953	2153	1136	2154	1225	2349	1331	....	1311	8
9	2247	0909	2227	1051	2230	1236	2248	1319	....	1407	0105	1340	9
10	2313	1009	2254	1148	2313	1335	2349	1409	0059	1439	0216	1409	10
11	2337	1107	2323	1247	....	1433	....	1454	0210	1510	0329	1441	11
12	....	1204	2356	1347	0003	1527	0056	1534	0323	1540	0444	1517	12
13	0001	1301	....	1447	0102	1617	0207	1609	0438	1612	0600	1600	13
14	0026	1400	0036	1548	0208	1701	0321	1642	0554	1647	0714	1650	14
15	0054	1459	0123	1646	0320	1740	0435	1713	0712	1727	0824	1749	15
16	0125	1601	0219	1739	0434	1814	0551	1745	0829	1814	0924	1853	16
17	0201	1702	0322	1827	0548	1847	0708	1819	0940	1909	1014	2000	17
18	0245	1802	0432	1909	0703	1918	0825	1857	1044	2009	1055	2106	18
19	0336	1859	0545	1945	0819	1951	0941	1939	1138	2114	1128	2211	19
20	0436	1950	0658	2019	0933	2025	1053	2029	1222	2219	1157	2312	20
21	0542	2035	0812	2050	1048	2104	1159	2124	1258	2322	1223	....	21
22	0652	2113	0925	2121	1159	2148	1256	2225	1328	....	1246	0011	22
23	0804	2148	1037	2153	1307	2238	1344	2328	1355	0024	1310	0109	23
24	0915	2219	1149	2228	1407	2334	1423	....	1419	0123	1334	0207	24
25	1026	2249	1300	2307	1459	....	1456	0030	1443	0221	1400	0305	25
26	1136	2319	1408	2352	1543	0034	1525	0132	1506	0318	1429	0404	26
27	1247	2352	1512	....	1620	0136	1550	0232	1531	0416	1503	0504	27
28	1357	....	1610	0043	1652	0238	1614	0331	1558	0515	1543	0604	28
29	1507	0027	1700	0140	1720	0339	1638	0428	1629	0614	1630	0703	29
30	1615	0108	1742	0241	1745	0438	1702	0526	1705	0714	1725	0759	30
31	1718	0155	1818	0343	....	....	1727	0624	....	....	1826	0849	31

Local Standard Time. Not adjusted for Daylight Savings Time.

Charleston/Savannah

Day	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		Day
	Rise h m	Set h m											
1	1145	2334	1140	0005	1045	....	1145	0130	1243	0156	1459	0228	1
2	1213	....	1213	0100	1124	0045	1245	0224	1350	0238	1607	0303	2
3	1242	0027	1249	0157	1208	0143	1350	0314	1458	0317	1716	0340	3
4	1311	0121	1331	0257	1300	0242	1459	0400	1607	0353	1826	0420	4
5	1342	0216	1420	0357	1358	0339	1609	0442	1716	0430	1934	0505	5
6	1417	0313	1516	0457	1503	0434	1720	0522	1827	0507	2039	0555	6
7	1457	0413	1620	0555	1612	0524	1831	0559	1938	0546	2138	0651	7
8	1543	0514	1728	0649	1724	0610	1942	0637	2048	0630	2229	0750	8
9	1636	0616	1839	0737	1835	0652	2053	0716	2155	0718	2314	0851	9
10	1737	0716	1950	0821	1946	0730	2202	0757	2257	0810	2352	0951	10
11	1842	0811	2100	0901	2057	0808	2310	0842	2351	0907	....	1049	11
12	1951	0902	2208	0938	2206	0846	....	0931	....	1006	0025	1145	12
13	2059	0947	2315	1014	2314	0924	0012	1024	0038	1105	0055	1240	13
14	2207	1027	....	1050	....	1006	0108	1121	0118	1203	0123	1333	14
15	2314	1104	0021	1129	0020	1051	0158	1218	0153	1300	0151	1427	15
16	....	1139	0125	1210	0123	1140	0241	1315	0225	1355	0219	1521	16
17	0019	1214	0228	1255	0221	1233	0318	1412	0254	1448	0249	1617	17
18	0123	1250	0328	1345	0313	1328	0351	1507	0321	1542	0321	1714	18
19	0228	1329	0424	1438	0359	1425	0422	1601	0349	1635	0358	1813	19
20	0331	1411	0514	1533	0440	1521	0450	1655	0418	1730	0440	1912	20
21	0434	1458	0559	1630	0516	1617	0518	1748	0448	1827	0528	2010	21
22	0533	1549	0639	1727	0548	1712	0546	1842	0522	1924	0623	2104	22
23	0628	1644	0714	1823	0618	1806	0615	1937	0600	2023	0723	2154	23
24	0717	1740	0746	1917	0647	1859	0647	2033	0644	2121	0827	2238	24
25	0801	1838	0815	2011	0714	1953	0722	2131	0734	2217	0933	2318	25
26	0840	1935	0844	2104	0743	2047	0802	2229	0830	2309	1038	2355	26
27	0914	2030	0912	2158	0813	2142	0847	2325	0931	2356	1144	....	27
28	0945	2125	0941	2252	0845	2238	0938	....	1034	....	1249	0029	28
29	1014	2218	1011	2348	0922	2336	1035	0020	1140	0038	1355	0103	29
30	1042	2311	....	....	1003	....	1137	0110	1246	0117	1502	0138	30
31	1111	....	....	....	1051	0033	....	....	1352	0153	....	....	31

Day	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		Day
	Rise h m	Set h m											
1	1609	0216	1810	0324	1854	0513	1824	0554	1823	0726	1822	0810	1
2	1717	0258	1900	0422	1925	0610	1851	0648	1859	0822	1912	0906	2
3	1823	0345	1943	0523	1954	0706	1919	0742	1939	0919	2008	0959	3
4	1924	0437	2021	0623	2021	0800	1949	0836	2025	1015	2107	1048	4
5	2019	0534	2054	0722	2049	0850	2022	0932	2116	1110	2210	1132	5
6	2106	0635	2124	0819	2118	0948	2059	1028	2213	1201	2313	1211	6
7	2147	0736	2152	0914	2149	1043	2141	1124	2314	1249	....	1247	7
8	2223	0836	2220	1008	2223	1138	2229	1220	....	1332	0018	1321	8
9	2255	0934	2248	1102	2302	1235	2323	1314	0018	1411	0123	1355	9
10	2324	1030	2318	1156	2347	1332	....	1405	0124	1447	0229	1429	10
11	2352	1124	2350	1251	....	1429	0023	1453	0231	1522	0337	1505	11
12	....	1218	....	1348	0039	1523	0128	1536	0339	1557	0447	1546	12
13	0020	1311	0027	1446	0137	1614	0235	1615	0449	1634	0559	1632	13
14	0048	1406	0109	1544	0241	1701	0344	1652	0600	1714	0711	1725	14
15	0119	1502	0158	1641	0349	1744	0453	1728	0714	1758	0818	1825	15
16	0154	1600	0254	1736	0459	1823	0604	1805	0826	1848	0919	1928	16
17	0233	1659	0356	1826	0609	1900	0716	1843	0936	1945	1011	2033	17
18	0319	1758	0503	1911	0719	1936	0828	1925	1039	2045	1055	2136	18
19	0411	1855	0612	1952	0829	2013	0940	2012	1134	2148	1132	2236	19
20	0510	1947	0721	2029	0940	2052	1050	2104	1220	2250	1204	2334	20
21	0615	2035	0830	2105	1049	2134	1154	2200	1259	2350	1233	....	21
22	0721	2117	0938	2140	1158	2221	1251	2300	1333	....	1301	0029	22
23	0829	2155	1046	2216	1302	2313	1340	....	1404	0048	1328	0123	23
24	0936	2231	1153	2255	1402	....	1423	0001	1432	0143	1356	0217	24
25	1042	2305	1300	2338	1455	0009	1459	0100	1459	0238	1425	0311	25
26	1148	2340	1406	....	1541	0108	1531	0158	1526	0331	1458	0407	26
27	1254	....	1508	0026	1621	0208	1600	0255	1554	0425	1535	0504	27
28	1401	0016	1605	0118	1656	0306	1628	0349	1625	0520	1617	0601	28
29	1507	0056	1656	0215	1728	0404	1655	0443	1659	0616	1706	0658	29
30	1612	0140	1741	0314	1756	0500	1723	0537	1738	0713	1801	0753	30
31	1714	0229	1820	0414	....	....	1752	0631	....	....	1900	0844	31

Local Standard Time. Not adjusted for Daylight Savings Time.

TABLE 6.-MOONRISE AND MOONSET, 2020

Galveston, TX

Day	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		Day
	Rise h m	Set h m											
1	1141	2335	1142	0002	1049	....	1152	0121	1248	0149	1458	0226	1
2	1211	....	1216	0056	1129	0038	1252	0215	1354	0232	1604	0303	2
3	1241	0026	1254	0152	1215	0135	1356	0306	1500	0312	1711	0342	3
4	1312	0119	1337	0250	1307	0234	1504	0354	1607	0351	1819	0424	4
5	1344	0213	1427	0349	1406	0331	1612	0437	1715	0429	1927	0511	5
6	1421	0308	1524	0449	1510	0426	1721	0518	1823	0508	2031	0602	6
7	1502	0406	1627	0547	1618	0517	1830	0558	1933	0549	2129	0658	7
8	1549	0507	1735	0641	1728	0604	1939	0637	2041	0635	2221	0758	8
9	1643	0608	1844	0731	1838	0647	2048	0718	2147	0724	2306	0857	9
10	1744	0707	1953	0816	1947	0728	2156	0801	2248	0818	2345	0956	10
11	1849	0803	2101	0857	2055	0807	2302	0848	2342	0915	....	1053	11
12	1956	0855	2207	0936	2202	0847	....	0938	....	1013	0020	1148	12
13	2103	0941	2312	1014	2308	0928	0004	1032	0029	1111	0051	1241	13
14	2209	1023	....	1052	....	1011	0100	1128	0111	1208	0121	1333	14
15	2314	1101	0016	1132	0013	1057	0149	1225	0147	1303	0150	1425	15
16	....	1138	0119	1215	0115	1147	0233	1321	0220	1356	0219	1518	16
17	0017	1215	0221	1302	0212	1240	0311	1416	0250	1449	0251	1612	17
18	0120	1253	0320	1352	0304	1335	0346	1510	0319	1540	0325	1708	18
19	0223	1333	0415	1445	0351	1431	0417	1602	0348	1633	0403	1806	19
20	0325	1416	0506	1540	0432	1527	0447	1654	0419	1726	0446	1904	20
21	0426	1504	0551	1636	0510	1621	0517	1746	0451	1821	0535	2001	21
22	0525	1556	0632	1732	0543	1714	0546	1839	0526	1918	0630	2056	22
23	0619	1651	0708	1826	0614	1807	0617	1932	0606	2015	0730	2146	23
24	0709	1747	0741	1919	0644	1859	0650	2027	0651	2112	0833	2232	24
25	0753	1843	0812	2012	0714	1951	0727	2124	0742	2208	0938	2313	25
26	0833	1939	0842	2103	0743	2043	0807	2221	0837	2300	1042	2351	26
27	0908	2033	0911	2155	0815	2137	0854	2317	0938	2348	1145	....	27
28	0941	2126	0942	2248	0849	2232	0946	....	1040	....	1249	0027	28
29	1011	2218	1014	2342	0927	2328	1043	0011	1144	0032	1353	0103	29
30	1041	2310	....	....	1009	....	1144	0102	1248	0112	1458	0140	30
31	1110	....	....	....	1058	0025	....	....	1353	0149	....	....	31

Day	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		Day
	Rise h m	Set h m											
1	1604	0219	1801	0331	1848	0517	1822	0555	1827	0721	1829	0802	1
2	1710	0303	1851	0430	1921	0613	1851	0647	1904	0816	1920	0857	2
3	1814	0351	1935	0529	1951	0707	1921	0739	1945	0911	2015	0950	3
4	1915	0444	2014	0628	2020	0800	1952	0832	2032	1007	2114	1039	4
5	2010	0542	2049	0726	2049	0852	2026	0926	2124	1101	2215	1124	5
6	2058	0642	2120	0821	2119	0945	2105	1021	2221	1152	2318	1205	6
7	2140	0742	2150	0915	2152	1038	2148	1116	2321	1240	....	1242	7
8	2217	0841	2219	1007	2228	1132	2237	1211	....	1324	0020	1318	8
9	2250	0937	2249	1100	2308	1227	2331	1305	0023	1405	0123	1353	9
10	2321	1031	2320	1152	2354	1324	....	1357	0127	1443	0228	1429	10
11	2350	1124	2354	1246	....	1420	0030	1445	0233	1520	0334	1508	11
12	....	1216	....	1341	0046	1514	0134	1529	0339	1557	0443	1550	12
13	0019	1308	0032	1438	0145	1606	0239	1610	0447	1635	0553	1639	13
14	0050	1402	0116	1536	0248	1654	0346	1649	0556	1717	0703	1733	14
15	0122	1457	0205	1633	0354	1738	0454	1727	0708	1804	0809	1833	15
16	0158	1553	0302	1727	0502	1819	0603	1806	0819	1855	0910	1936	16
17	0239	1651	0404	1818	0611	1857	0713	1846	0927	1953	1002	2040	17
18	0326	1750	0509	1904	0719	1935	0823	1930	1030	2053	1047	2141	18
19	0419	1846	0617	1947	0827	2014	0934	2018	1125	2155	1126	2240	19
20	0518	1939	0724	2026	0935	2055	1042	2111	1212	2256	1159	2336	20
21	0621	2027	0831	2103	1043	2140	1145	2208	1252	2355	1230	....	21
22	0727	2111	0937	2140	1150	2228	1242	2308	1328	....	1259	0029	22
23	0833	2151	1043	2219	1254	2321	1332	....	1359	0051	1328	0122	23
24	0938	2228	1148	2259	1353	....	1415	0007	1429	0145	1357	0214	24
25	1043	2304	1254	2344	1446	0017	1452	0106	1457	0237	1428	0307	25
26	1147	2341	1358	....	1533	0115	1526	0202	1526	0329	1502	0401	26
27	1251	....	1459	0033	1614	0214	1557	0257	1556	0422	1541	0457	27
28	1355	0019	1556	0126	1650	0311	1626	0350	1628	0515	1624	0553	28
29	1500	0100	1648	0222	1723	0407	1654	0442	1704	0610	1714	0650	29
30	1604	0146	1733	0321	1753	0502	1723	0535	1744	0705	1808	0744	30
31	1705	0236	1813	0420	....	....	1754	0627	....	....	1907	0836	31

Local Standard Time. Not adjusted for Daylight Savings Time.

Panama Canal East

Day	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		Day
	Rise h m	Set h m											
1	1128	2340	1157	....	1116	....	1232	0036	1316	0113	1451	0223	1
2	1206	....	1238	0033	1202	0003	1329	0132	1413	0204	1547	0310	2
3	1243	0024	1323	0121	1252	0055	1428	0227	1509	0254	1644	0359	3
4	1322	0108	1411	0213	1346	0150	1527	0321	1606	0342	1744	0450	4
5	1402	0154	1505	0307	1444	0247	1626	0413	1703	0430	1844	0544	5
6	1446	0242	1603	0405	1544	0344	1725	0504	1801	0520	1945	0641	6
7	1534	0333	1703	0504	1646	0441	1823	0554	1901	0611	2044	0739	7
8	1626	0427	1805	0602	1747	0536	1922	0644	2002	0704	2139	0837	8
9	1722	0524	1907	0659	1846	0629	2021	0735	2103	0800	2229	0933	9
10	1822	0623	2007	0753	1945	0720	2121	0827	2202	0858	2315	1026	10
11	1923	0722	2104	0844	2043	0809	2220	0921	2258	0955	2357	1116	11
12	2024	0819	2201	0933	2140	0859	2319	1016	2349	1051	....	1203	12
13	2122	0913	2256	1020	2238	0949	....	1112	....	1144	0037	1248	13
14	2219	1004	2351	1108	2335	1040	0015	1207	0037	1235	0114	1331	14
15	2314	1052	....	1156	....	1132	0107	1300	0120	1322	0151	1415	15
16	....	1138	0046	1246	0032	1226	0156	1351	0201	1408	0229	1500	16
17	0008	1224	0142	1338	0127	1320	0240	1440	0239	1452	0308	1546	17
18	0101	1311	0237	1430	0221	1413	0322	1526	0316	1536	0349	1635	18
19	0155	1359	0331	1524	0311	1505	0401	1611	0353	1620	0434	1726	19
20	0250	1449	0423	1617	0357	1555	0439	1655	0431	1705	0523	1820	20
21	0346	1541	0513	1708	0441	1642	0516	1738	0511	1752	0615	1916	21
22	0441	1635	0559	1757	0522	1728	0554	1823	0554	1842	0711	2011	22
23	0536	1729	0642	1845	0601	1813	0632	1909	0640	1934	0808	2106	23
24	0628	1822	0722	1930	0639	1856	0713	1956	0729	2028	0906	2158	24
25	0717	1913	0801	2015	0716	1940	0756	2046	0822	2122	1002	2248	25
26	0802	2002	0839	2058	0754	2025	0843	2138	0917	2217	1058	2335	26
27	0845	2049	0916	2142	0833	2111	0933	2232	1014	2310	1152	....	27
28	0924	2134	0954	2227	0914	2159	1026	2326	1111	....	1246	0021	28
29	1003	2218	1034	2314	0958	2249	1122	....	1207	0001	1339	0107	29
30	1040	2302	....	....	1045	2342	1219	0020	1302	0049	1435	0153	30
31	1118	2347	....	....	1137	....	....	....	1356	0137	....	....	31

Day	JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		Day
	Rise h m	Set h m											
1	1532	0242	1716	0412	1824	0541	1820	0557	1854	0653	1910	0717	1
2	1630	0333	1809	0509	1905	0629	1857	0641	1937	0740	2002	0810	2
3	1730	0428	1859	0604	1943	0715	1935	0725	2024	0830	2056	0903	3
4	1829	0525	1945	0657	2021	0800	2014	0809	2114	0921	2151	0955	4
5	1926	0623	2028	0747	2058	0844	2055	0856	2206	1014	2246	1046	5
6	2019	0720	2107	0835	2136	0928	2140	0944	2300	1107	2339	1134	6
7	2107	0814	2145	0920	2216	1013	2227	1034	2355	1158	....	1221	7
8	2151	0906	2223	1004	2258	1100	2318	1126	....	1249	0033	1306	8
9	2232	0955	2300	1048	2344	1149	....	1219	0051	1338	0126	1351	9
10	2311	1041	2339	1132	....	1240	0012	1312	0146	1425	0220	1438	10
11	2349	1126	....	1218	0034	1334	0108	1405	0241	1512	0315	1526	11
12	....	1210	0020	1307	0127	1429	0205	1457	0337	1600	0414	1618	12
13	0026	1254	0105	1357	0224	1524	0303	1547	0433	1649	0515	1714	13
14	0104	1339	0153	1451	0323	1618	0400	1636	0532	1741	0618	1814	14
15	0144	1426	0246	1547	0422	1710	0457	1725	0634	1836	0722	1915	15
16	0227	1516	0342	1643	0520	1801	0555	1814	0737	1934	0823	2016	16
17	0314	1609	0441	1739	0618	1850	0653	1905	0840	2035	0920	2115	17
18	0405	1704	0540	1833	0716	1939	0754	1958	0942	2135	1011	2209	18
19	0459	1801	0639	1924	0813	2028	0855	2054	1040	2233	1057	2300	19
20	0557	1857	0737	2013	0911	2119	0957	2152	1132	2328	1140	2347	20
21	0656	1951	0834	2101	1010	2211	1058	2250	1220	....	1219	....	21
22	0755	2043	0929	2148	1109	2306	1156	2348	1303	0019	1256	0033	22
23	0852	2132	1025	2236	1209	....	1249	....	1343	0107	1333	0117	23
24	0948	2219	1121	2326	1306	0002	1338	0043	1421	0153	1411	0200	24
25	1042	2305	1218	....	1401	0058	1423	0135	1458	0237	1450	0245	25
26	1136	2352	1316	0017	1452	0154	1505	0224	1535	0321	1531	0331	26
27	1230	....	1414	0111	1540	0247	1543	0311	1613	0404	1616	0419	27
28	1326	0039	1510	0207	1623	0338	1621	0355	1653	0450	1704	0510	28
29	1423	0128	1604	0303	1704	0426	1658	0439	1735	0537	1756	0603	29
30	1521	0221	1655	0358	1743	0512	1735	0523	1821	0626	1850	0657	30
31	1619	0316	1741	0451	....	....	1814	0607	....	....	1946	0751	31

Local Standard Time. Not adjusted for Daylight Savings Time.

TABLE 7.—CONVERSION OF FEET TO CENTIMETERS

Feet	Tenths of a Foot										Feet
	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	
0	0	3	6	9	12	15	18	21	24	27	0
1	30	34	37	40	43	46	49	52	55	58	1
2	61	64	67	70	73	76	79	82	85	88	2
3	91	94	98	101	104	107	110	113	116	119	3
4	122	125	128	131	134	137	140	143	146	149	4
5	152	155	158	162	165	168	171	174	177	180	5
6	183	186	189	192	195	198	201	204	207	210	6
7	213	216	219	223	226	229	232	235	238	241	7
8	244	247	250	253	256	259	262	265	268	271	8
9	274	277	280	283	287	290	293	296	299	302	9
10	305	308	311	314	317	320	323	326	329	332	10
11	335	338	341	344	347	351	354	357	360	363	11
12	366	369	372	375	378	381	384	387	390	393	12
13	396	399	402	405	408	411	415	418	421	424	13
14	427	430	433	436	439	442	445	448	451	454	14
15	457	460	463	466	469	472	475	479	482	485	15
16	488	491	494	497	500	503	506	509	512	515	16
17	518	521	524	527	530	533	536	539	543	546	17
18	549	552	555	558	561	564	567	570	573	576	18
19	579	582	585	588	591	594	597	600	604	607	19
20	610	613	616	619	622	625	628	631	634	637	20
21	640	643	646	649	652	655	658	661	664	668	21
22	671	674	677	680	683	686	689	692	695	698	22
23	701	704	707	710	713	716	719	722	725	728	23
24	732	735	738	741	744	747	750	753	756	759	24
25	762	765	768	771	774	777	780	783	786	789	25
26	792	796	799	802	805	808	811	814	817	820	26
27	823	826	829	832	835	838	841	844	847	850	27
28	853	856	860	863	866	869	872	875	878	881	28
29	884	887	890	893	896	899	902	905	908	911	29
30	914	917	920	924	927	930	933	936	939	942	30
31	945	948	951	954	957	960	963	966	969	972	31
32	975	978	981	985	988	991	994	997	1000	1003	32
33	1006	1009	1012	1015	1018	1021	1024	1027	1030	1033	33
34	1036	1039	1042	1045	1049	1052	1055	1058	1061	1064	34
35	1067	1070	1073	1076	1079	1082	1085	1088	1091	1094	35
36	1097	1100	1103	1106	1109	1113	1116	1119	1122	1125	36
37	1128	1131	1134	1137	1140	1143	1146	1149	1152	1155	37
38	1158	1161	1164	1167	1170	1173	1177	1180	1183	1186	38
39	1189	1192	1195	1198	1201	1204	1207	1210	1213	1216	39
40	1219	1222	1225	1228	1231	1234	1237	1241	1244	1247	40
41	1250	1253	1256	1259	1262	1265	1268	1271	1274	1277	41
42	1280	1283	1286	1289	1292	1295	1298	1301	1305	1308	42
43	1311	1314	1317	1320	1323	1326	1329	1332	1335	1338	43
44	1341	1344	1347	1350	1353	1356	1359	1362	1366	1369	44
45	1372	1375	1378	1381	1384	1387	1390	1393	1396	1399	45
46	1402	1405	1408	1411	1414	1417	1420	1423	1426	1430	46
47	1433	1436	1439	1442	1445	1448	1451	1454	1457	1460	47
48	1463	1466	1469	1472	1475	1478	1481	1484	1487	1490	48
49	1494	1497	1500	1503	1506	1509	1512	1515	1518	1521	49
50	1524	1527	1530	1533	1536	1539	1542	1545	1548	1551	50

Feet to Meters = Centimeters divided by 100 (from above table)

Example: 09.40 feet = (287 centimeters) / (100) = 02.87 meters.

1 Meter = 100 centimeters

1 Meter = 3.2808399 feet

1 Foot = 0.30480061 meters

1 Foot = 30.480061 centimeters

TABLE 8.—TIDE PREDICTION ACCURACY

EXPLANATION OF TABLE

The accuracy of National Ocean Service tide predictions is determined by comparing predicted and observed high and low waters at all stations for which data exists, primarily the U.S. and its territories. Each water-level station is unique; there is no single standard of accuracy when comparing astronomic tide predictions with observed water levels. Water-level station locations are examined on an individual basis to determine if the predictions are adequate. Comparisons are based on 1989 data except for those locations where the stations were not in operation or the data acquired were unacceptable. If a station was not in operation in 1989, the last good year of data was used. Comparisons are made by subtracting the observed times and heights of the high and low waters from the predicted tides to compute a difference.

Table Legend

Station ID—Each water-level station in the United States and dependent territories has a unique seven digit identification number (ID). The ID is unrelated to the four digit station number used in the published prediction tables.

90% Distribution Level—90% of the absolute values of the differences are less than or equal to the values in these columns.

Standard Deviation of Differences—Standard deviation of all the differences.

Average Difference—Average of the signed sum of all the differences.

Notes

Albany—This station, located on the Hudson River, experiences a significant change in river level and corresponding times and heights of high and low waters throughout the year.

Baltimore—Winds greatly affect the times and heights of the high and low tides, owing to the large shallow bay and small tidal range.

Gulf of Mexico locations—Water level is difficult to predict because the Gulf, being large, relatively shallow, and with a small tidal range, is greatly influenced by weather conditions.

TABLE 8.—TIDE PREDICTION ACCURACY

Station ID	Station Name	Year	90% Distribution Level				Standard Deviation of Differences				Average Differences			
			Time Differences (Hours)	High Water (Feet)	Low Water (Hours)	Height Differences (Feet)	Times (Hours)	High Water (Feet)	Low Water (Hours)	Heights (Feet)	Times (Hours)	High Water (Feet)	Low Water (Hours)	Heights (Feet)
841-0140	Eastport, ME	1998	0.2	0.7	0.2	0.6	0.09	0.11	0.41	0.40	-0.07	-0.10	-0.08	-0.10
841-8150	Portland, ME	1998	0.3	0.6	0.2	0.6	0.14	0.13	0.40	0.39	-0.10	-0.07	-0.11	0.06
844-3970	Boston, MA	1998	0.3	0.8	0.3	0.7	0.14	0.14	0.49	0.48	-0.10	-0.10	-0.10	-0.09
844-7930	Woods Hole, MA	2003	0.5	0.7	>1.0	0.7	0.48	0.77	0.43	0.40	-0.03	0.01	-0.02	-0.01
844-9130	Nantucket, Ma	2003	0.3	0.6	0.3	0.6	0.23	0.21	0.40	0.39	-0.03	0.03	-0.03	0.03
845-2660	Newport, RI	1997	0.3	0.7	0.6	0.7	0.19	0.14	0.41	0.40	-0.06	-0.04	-0.07	-0.05
846-1490	New London, CT	1998	0.4	0.7	0.3	0.7	0.25	0.22	0.47	0.47	-0.11	-0.08	-0.10	-0.09
846-7150	Bridgeport, CT	1998	0.3	0.8	0.3	0.8	0.13	0.13	0.55	0.56	-0.12	-0.15	-0.11	-0.16
841-6945	Kings Point, NY	1999	0.9	0.8	>1.0	0.8	0.59	0.54	0.55	0.56	-0.12	-0.15	-0.11	-0.16
851-8750	The Battery, NY	2003	0.6	0.9	0.5	0.9	0.37	0.31	0.59	0.60	-0.07	-0.06	0.03	-0.02
853-1680	Sandy Hook, NJ	2002	0.4	0.8	0.4	0.8	0.25	0.25	0.51	0.54	-0.13	-0.12	0.19	0.21
853-4720	Atlantic City, NJ	2000	0.3	0.9	0.4	0.9	0.24	0.24	0.57	0.57	-0.02	-0.01	0.02	-0.02
854-5530	Philadelphia, PA	1989	0.5	1.0	0.6	1.0	0.30	0.36	0.72	0.65	0.14	0.11	-0.12	0.28
855-1910	Reedy Point, DE	2002	0.5	0.9	0.7	0.9	0.23	0.31	0.55	0.56	-0.18	-0.35	0.09	-0.02
855-7380	Breakwater Harbor, DE	1998	0.3	0.9	0.3	0.9	0.18	0.18	0.62	0.68	-0.06	-0.03	-0.03	-0.01
857-4680	Baltimore, MD	1998	0.8	1.0	1.0	1.0	1.38	1.43	0.64	0.62	-0.21	-0.09	-0.21	-0.11
859-4900	Washington, DC	1998	0.5	0.8	0.8	1.0	0.33	0.48	0.73	0.83	-0.05	-0.19	-0.03	-0.23
863-8863	Chesapeake Bay Bri Tunnel	2002	0.3	0.8	0.4	0.8	0.25	0.27	0.50	0.52	-0.06	-0.08	-0.07	-0.08
863-8610	Hampton Roads, VA	1995	0.4	0.8	0.4	0.8	0.27	0.25	0.51	0.56	0.07	0.05	0.03	-0.01
865-8120	Wilmington, NC	2003	0.5	0.6	0.5	0.8	0.34	0.29	0.38	0.46	-0.01	-0.08	0.11	0.16
8661070	Myrtle Beach, SC	2003	0.4	0.8	0.4	0.8	0.28	0.29	0.48	0.50	0.00	0.01	0.00	0.00
866-5530	Charleston, SC	2000	0.4	0.6	0.4	0.7	0.19	0.20	0.42	0.47	0.14	-0.10	0.05	-0.02
867-0870	Savannah R. Ent., GA	1995	0.3	0.7	0.3	0.9	0.21	0.19	0.47	0.58	-0.01	-0.07	0.05	0.03
872-0030	Fernandina Beach, FL	1995	0.2	0.9	0.3	0.9	0.15	0.19	0.48	0.56	-0.02	0.06	0.33	0.30
872-0218	Mayport, FL	2003	0.2	0.6	0.3	0.8	0.14	0.21	0.41	0.51	-0.04	0.01	-0.02	0.01
872-3178	Miami, Government Cut, FL	1985	0.3	0.4	0.3	0.4	0.18	0.17	0.25	0.24	-0.07	0.01	-0.02	-0.01
872-4580	Key West, FL	2000	0.5	0.3	0.4	0.3	0.29	0.25	0.19	0.20	-0.18	-0.06	-0.15	-0.10
872-6520	St. Petersburg, FL	2003	0.7	0.6	0.7	0.5	0.56	0.44	0.38	0.34	0.07	0.00	0.01	0.2
872-9840	Pensacola, FL	1995	>1.0	0.6	>1.0	0.9	2.61	2.72	0.48	0.41	0.04	0.10	-0.04	0.07
873-7048	Mobile, AL	1984	>1.0	0.8	>1.0	0.7	2.56	2.49	0.48	0.45	0.05	-0.09	-0.05	0.04
876-1724	Grand Isle, LA	2003	>1.0	0.5	>1.0	0.5	1.21	1.22	0.30	0.30	-0.24	-0.33	0.00	0.00
877-1450	Galveston, TX	1995	>1.0	0.7	>1.0	0.8	1.29	1.25	0.50	0.54	-0.15	-0.12	-0.03	0.00

TABLE 9.— LOWEST/ HIGHEST ASTRONOMICAL TIDE AND OTHER TIDAL DATUMS

EXPLANATION OF TABLE

Lowest Astronomical Tide (LAT) and Highest Astronomical Tide (HAT) are the lowest and highest predicted values for the tides at a given location over a 19 year period. These values were calculated by generating tide predictions for the time period of the latest National Tidal Datum Epoch (1983-2001) using the latest set of tidal harmonic constituents. The highest and lowest values predicted were recorded to the nearest 0.1 foot. It is important to note that the LAT and HAT values are derived solely from predicted tides based on astronomical forces. Observed water levels can be above the HAT level or below the LAT level due to storms, winds, or other meteorological effects which are not accounted for in the tide predictions.

Table Legend

Station - Each water level station in the United States and its territories has a unique seven digit identification number (ID). The ID is unrelated to the four digit indexing number used in the published prediction tables.

LAT - Lowest Astronomical Tide - The lowest predicted tidal level

MLLW - Mean Lower Low Water

MLW - Mean Low Water

MHW - Mean High Water

MHHW - Mean Higher High Water

HAT - Highest Astronomical Tide - The highest predicted tidal level

Notes

All elevations are provided in feet relative to Mean Lower Low Water (MLLW), the reference datum for tide predictions and soundings on NOAA nautical charts. The other tidal datums (Mean Low Water, Mean High Water, and Mean Higher High Water) in this table are included to provide additional information.

**TABLE 9.— LOWEST/ HIGHEST ASTRONOMICAL TIDE AND
OTHER TIDAL DATUMS
RELATIVE TO MLLW (feet)**

Station	Name	LAT	MLW	MHW	MHHW	HAT
8410140	Eastport, Maine	-3.4	0.4	18.8	19.3	22.9
8413320	Bar Harbor, Maine	-2.2	0.4	10.9	11.4	13.7
8418150	Portland, Maine	-2.0	0.3	9.5	9.9	11.9
8443970	Boston, Massachusetts	-2.2	0.3	9.8	10.3	12.4
8449130	Nantucket Island, Massachusetts	-0.8	0.2	3.2	3.6	4.5
8447930	Woods Hole, Massachusetts	-0.7	0.1	1.9	2.2	3.2
8452660	Newport, Rhode Island	-1.0	0.1	3.6	3.9	5.2
8510560	Montauk, Fort Pond, New York	-0.9	0.2	2.2	2.5	3.5
8461490	New London, Connecticut	-0.8	0.2	2.8	3.1	3.9
8467150	Bridgeport, Connecticut	-1.4	0.2	7.0	7.3	8.8
8516945	Kings Point, New York	-1.5	0.3	7.4	7.8	9.7
8518750	New York (The Battery), New York	-1.5	0.2	4.7	5.1	6.4
8519483	Bayonne Bridge, New York	-1.6	0.2	5.2	5.5	6.9
8518995	Albany, New York	-1.1	0.2	5.1	5.5	6.3
8531680	Sandy Hook, New Jersey	-1.4	0.2	4.9	5.2	6.6
8534720	Atlantic City, New Jersey	-1.3	0.2	4.2	4.6	5.8
8557380	Breakwater Harbor, Delaware	-1.1	0.2	4.2	4.7	5.8
8551910	Reedy Point, Delaware	-1.0	0.2	5.5	5.8	6.9
8545530	Philadelphia, Pennsylvania	-0.6	0.2	6.4	6.8	8.0
8570280	Ocean City, Maryland	-1.2	0.2	3.5	3.9	5.1
8574680	Baltimore, Maryland	-0.6	0.2	1.4	1.7	2.3
8594900	Washington, DC	-0.6	0.2	2.9	3.2	3.8
8638863	Chesapeake Bay Bridge Tunnel, Virginia	-0.9	0.1	2.7	2.9	4.0
8638610	Hampton Roads, Sewells Point, Virginia	-0.7	0.1	2.6	2.8	3.6
8651370	Duck Pier, North Carolina	-1.0	0.1	3.4	3.7	4.9
8652587	Oregon Inlet Marina, North Carolina	-0.2	0.1	1.0	1.2	1.7
8654400	Cape Hatteras, North Carolina	-1.0	0.1	3.1	3.5	4.7
8658120	Wilmington, North Carolina	-0.4	0.2	4.4	4.7	5.4
8661070	Myrtle Beach, South Carolina	-1.5	0.2	5.2	5.6	7.2
8665530	Charleston, South Carolina	-1.5	0.2	5.4	5.8	7.3
8670870	Savannah River Entrance, Georgia	-1.7	0.2	7.1	7.5	9.2
8670681	Savannah, Georgia	-1.9	0.3	8.1	8.6	10.1
8720030	Fernandina Beach, Florida	-1.7	0.2	6.2	6.6	8.2
8720218	Mayport, Florida	-1.6	0.2	4.7	5.0	6.4
8721604	Port Canaveral, Florida	-1.2	0.2	3.6	4.0	5.4
8723178	Miami, Government Cut, Florida	-0.9	0.1	2.5	2.5	3.6
8723970	Vaca Key, Florida	-0.5	0.2	0.9	1.0	1.7
8724580	Key West, Florida	-0.8	0.2	1.5	1.8	2.6
8725110	Naples, Florida	-1.4	0.6	2.6	2.9	3.8
8726520	St. Petersburg, Florida	-1.1	0.4	2.0	2.3	3.1
8727520	Cedar Key, Florida	-1.4	0.6	3.5	3.8	4.8
8728130	St. Marks River Entrance, Florida	-1.6	0.6	3.3	3.5	4.5
8728690	Apalachicola, Florida	-1.0	0.4	1.5	1.6	2.1
8729840	Pensacola, Florida	-1.2	0.0	1.2	1.3	2.2
8735180	Dauphin Island, Alabama	-1.0	0.0	1.2	1.2	2.0
8737048	Mobile, Alabama	-1.2	0.1	1.5	1.6	2.4
8760551	South Pass, Louisiana	-1.2	0.0	1.2	1.2	2.2
8761724	Grand Isle, Louisiana	-0.9	0.0	1.1	1.1	1.8
8771450	Galveston, Texas	-1.2	0.3	1.3	1.4	2.0
8773701	Port O'Connor, Texas	-0.9	0.0	0.8	0.8	1.7
8779750	Padre Island, Texas	-1.5	0.2	1.4	1.5	2.4
2695540	Bermuda Esso Pier, Bermuda	-0.8	0.1	2.6	2.9	3.9
9710441	Settlement Point, Grand Bahamas Island	-0.8	0.1	2.8	3.1	4.1
9759110	Magueyes Island, Puerto Rico	-0.5	0.0	0.7	0.7	1.1
9755371	San Juan, Puerto Rico	-0.6	0.2	1.3	1.6	2.2
9751639	Charlotte Amalie, St. Thomas Island	-0.5	0.0	0.7	0.8	1.2
9751401	Lime Tree Bay, St. Croix Island	-0.5	0.0	0.7	0.7	1.1

PUBLICATIONS RELATING TO TIDES AND TIDAL CURRENTS

TIDE TABLES

Advance information relative to the rise and fall of the tide is given in annual tide tables. These tables include the predicted times and heights of high and low waters for every day in the year for a number of reference stations and differences for obtaining similar predictions for numerous other places.

Tide Tables, Central and Western Pacific Ocean and Indian Ocean.

Tide Tables, East Coast of North and South America (Including Greenland).

Tide Tables, Europe and West Coast of Africa (Including the Mediterranean Sea).

Tide Tables, West Coast of North and South America (Including the Hawaiian Islands).

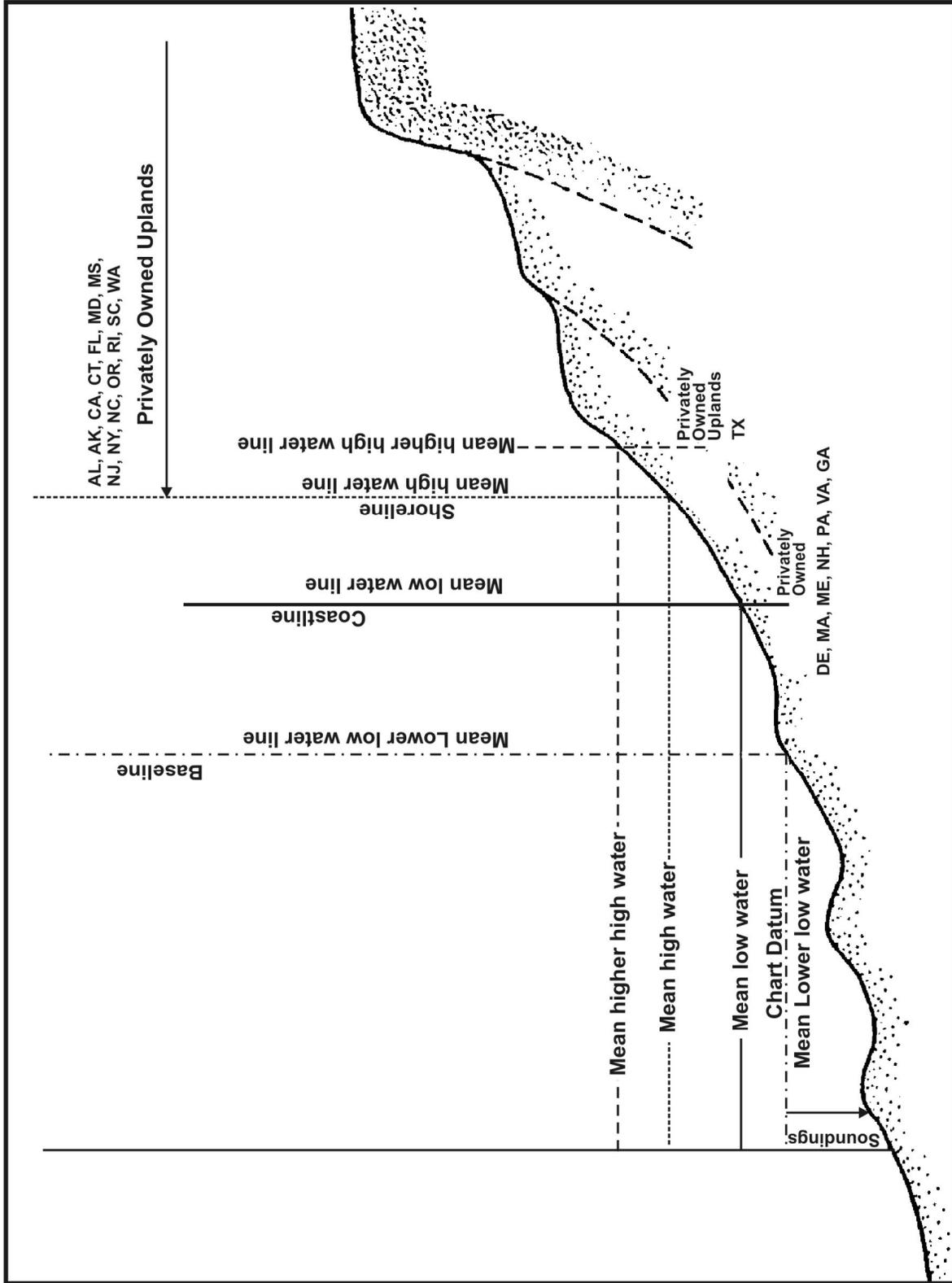
TIDAL CURRENT TABLES

Accompanying the rise and fall of the tide is a periodic horizontal flow of the water known as the tidal current. Advance information relative to these currents is made available in annual tidal current tables which include daily predictions of the times of slack water and the times and velocities of strength of flood and ebb currents for a number of waterways together with differences for obtaining predictions for numerous other places.

Tidal Current Tables, Atlantic Coast of North America.

Tidal Current Tables, Pacific Coast of North America and Asia.

OFFICIAL U.S. DATUMS



GLOSSARY OF TERMS

- ANNUAL INEQUALITY**—Seasonal variation in the water level or current, more or less periodic, due chiefly to meteorological causes.
- APOGEAN TIDES OR TIDAL CURRENTS**—Tides of decreased range or currents of decreased speed occurring monthly as the result of the Moon being in apogee (farthest from the Earth).
- AUTOMATIC TIDE GAGE**—An instrument that automatically registers the rise and fall of the tide. In some instruments, the registration is accomplished by recording the heights at regular intervals in digital format, in others by a continuous graph in which the height versus corresponding time of the tide is recorded.
- BENCH MARK (BM)**—A fixed physical object or marks used as reference for a vertical datum. A *tidal bench mark* is one near a tide station to which the tide staff and tidal datums are referred. A *Geodetic bench mark* identifies a surveyed point in the National Geodetic Vertical Network.
- CHART DATUM**—The tidal datum to which soundings on a chart are referred. It is usually taken to correspond to low water elevation of the tide, and its depression below mean sea level is represented by the symbol Zo.
- CURRENT**—Generally, a horizontal movement of water. Currents may be classified as *tidal* and *nontidal*. Tidal currents are caused by gravitational interactions between the Sun, Moon, and Earth and are a part of the same general movement of the sea that is manifested in the vertical rise and fall, called *tide*. Nontidal currents include the permanent currents in the general circulatory systems of the sea as well as temporary currents arising from more pronounced meteorological variability.
- CURRENT DIFFERENCE**—Difference between the time of slack water (or minimum current) or strength of current in any locality and the time of the corresponding phase of the tidal current at a reference station, for which predictions are given in the *Tidal Current Tables*.
- CURRENT ELLIPSE**—A graphic representation of a rotary current in which the velocity of the current at different hours of the tidal cycle is represented by radius vectors and vectorial angles. A line joining the extremities of the radius vectors will form a curve roughly approximating an ellipse. The cycle is completed in one-half tidal day or in a whole tidal day according to whether the tidal current is of the semidiurnal or the diurnal type. A current of the mixed type will give a curve of two unequal loops each tidal day.
- CURRENT METER**—An instrument for measuring the speed and direction or just the speed of a current. The measurements are usually Eulerian since the meter is most often fixed or moored at a specific location.
- DATUM (vertical)**—For marine applications, a base elevation used as a reference from which to reckon heights or depths. It is called a *tidal datum* when defined by a certain phase of the tide. Tidal datums are local datums and should not be extended into areas which have differing topographic features without substantiating measurements. In order that they may be recovered when needed, such datums are referenced to fixed points known as *bench marks*.
- DAYLIGHT SAVING TIME**—A time used during the summer in some localities in which clocks are advanced 1 hour from the usual standard time.
- DIURNAL**—Having a period or cycle of approximately 1 tidal day. Thus, the tide is said to be diurnal when only one high water and one low water occur during a tidal day, and the tidal current is said to be diurnal when there is a single flood and single ebb period in the tidal day. A rotary current is diurnal if it changes its direction through all points of the compass once each tidal day.
- DIURNAL INEQUALITY**—The difference in height of the two high waters or of the two low waters of each day; also the difference in speed between the two flood tidal currents or the two ebb tidal currents of each day. The difference changes with the declination of the Moon and to a lesser extent with the declination of the Sun. In general, the inequality tends to increase with an increasing declination, either north or south, and to diminish as the Moon approaches the Equator. *Mean diurnal high water inequality* (DHQ) is one-half the average difference between the two high waters of each day observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). It is obtained by subtracting the mean of all high waters from the mean of the higher high waters. *Mean diurnal low water inequality* (DLQ) is one-half the average difference between the two low waters of each day observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). It is obtained by subtracting the mean of the lower low waters from the mean of all low waters. *Tropic high water inequality* (HWQ) is the average difference between the two high waters of the day at the times of the tropic tides. *Tropic low water inequality* (LWQ) is the average difference between the two low waters of the day at the times of the tropic tides. Mean and tropic inequalities as

GLOSSARY OF TERMS

defined above are applicable only when the type of tide is either semidiurnal or mixed. Diurnal inequality is sometimes called *declinational inequality*.

DOUBLE EBB—An ebb tidal current where, after ebb begins, the speed increases to a maximum called *first ebb*; it then decreases, reaching a *minimum ebb* near the middle of the ebb period (and at some places it may actually run in a flood direction for a short period); it then again ebbs to a maximum speed called second ebb after which it decreases to slack water.

DOUBLE FLOOD—A flood tidal current where, after flood begins, the speed increases to a maximum called first flood; it then decreases, reaching a minimum flood near the middle of the flood period (and at some places it may actually run in an ebb direction for a short period); it then again floods to a maximum speed called second flood after which it decreases to slack water.

DOUBLE TIDE—A double-headed tide, that is, a high water consisting of two maxima of nearly the same height separated by a relatively small depression, or a low water consisting of two minima separated by a relatively small elevation. Sometimes, it is called an agger.

DURATION OF FLOOD AND DURATION OF EBB—Duration of flood is the interval of time in which a tidal current is flooding, and the *duration of ebb* is the interval in which it is ebbing. Together they cover, on an average, a period of 12.42 hours for a semidiurnal tidal current or a period of 24.84 hours for a diurnal current. In a normal semidiurnal tidal current, the duration of flood and duration of ebb will each be approximately equal to 6.21 hours, but the times may be modified greatly by the presence of a nontidal flow. In a river the duration of ebb is usually longer than the duration of flood because of the freshwater discharge, especially during the spring when snow and ice melt are the predominant influences.

DURATION OF RISE AND DURATION OF FALL—*Duration of rise* is the interval from low water to high water, and *duration of fall* is the interval from high water to low water. Together they cover, on an average, a period of 12.42 hours for a semidiurnal tide or a period of 24.84 hours for a diurnal tide. In a normal semidiurnal tide, the duration of rise and duration of fall will each be approximately equal to 6.21 hours, but in shallow waters and in rivers there is a tendency for a decrease in the duration of rise and a corresponding increase in the duration of fall.

EBB CURRENT—The movement of a tidal current away from shore or down a tidal river or estuary. In the

mixed type of reversing tidal current, the terms *greater ebb* and *lesser ebb* are applied respectively to the ebb tidal currents of greater and lesser speed of each day. The terms *maximum ebb* and *minimum ebb* are applied to the maximum and minimum speeds of a current running continuously ebb, the speed alternately increasing and decreasing without coming to a slack or reversing. The expression maximum ebb is also applicable to any ebb current at the time of greatest speed.

EQUATORIAL TIDAL CURRENTS—Tidal currents occurring semimonthly as a result of the Moon being over the Equator. At these times the tendency of the Moon to produce a diurnal inequality in the tidal current is at a minimum.

EQUATORIAL TIDES—Tides occurring semi monthly as the result of the Moon being over the Equator. At these times the tendency of the Moon to produce a diurnal inequality in the tide is at a minimum.

FLOOD CURRENT—The movement of a tidal current toward the shore or up a tidal river or estuary. In the mixed type of reversing current, the terms *greater flood* and *lesser flood* are applied respectively to the flood currents of greater and lesser speed of each day. The terms *maximum flood* and *minimum flood* are applied to the maximum and minimum speeds of a flood current, the speed of which alternately increases and decreases without coming to a slack or reversing. The expression maximum flood is also applicable to any flood current at the time of greatest speed.

GREAT DIURNAL RANGE (Gt)—The difference in height between mean higher high water and mean lower low water. The expression may also be used in its contracted form, *diurnal range*.

GREENWICH INTERVAL—An interval referred to the transit of the Moon over the meridian of Greenwich as distinguished from the local interval which is referred to the Moon's transit over the local meridian. The relation in hours between Greenwich and local intervals may be expressed by the formula:

$$\text{Greenwich interval} = \text{local interval} + 0.069 L$$

where L is the west longitude of the local meridian in degrees. For east longitude, L is to be considered negative.

GULF COAST LOW WATER DATUM—A chart datum. Specifically, the tidal datum formerly designated for the coastal waters of the Gulf Coast of the United States. It was defined as *mean lower low water* when the type of tide was mixed and *mean low water* when the type of tide was diurnal.

HALF-TIDE LEVEL—See *mean tide level*.

GLOSSARY OF TERMS

- HARMONIC ANALYSIS**—The mathematical process by which the observed tide or tidal current at any place is separated into basic harmonic constituents.
- HARMONIC CONSTANTS**—The amplitudes and epochs of the harmonic constituents of the tide or tidal current at any place.
- HARMONIC CONSTITUENT**—One of the harmonic elements in a mathematical expression for the tide-producing force and in corresponding formulas for the tide or tidal current. Each constituent represents a periodic change or variation in the relative positions of the Earth, Moon, and Sun. A single constituent is usually written in the form $y=A \cos (at+\alpha)$, in which y is a function of time as expressed by the symbol t and is reckoned from a specific origin. The coefficient A is called the amplitude of the constituent and is a measure of its relative importance. The angle $(at+\alpha)$ changes uniformly and its value at any time is called the phase of the constituent. The speed of the constituent is the rate of change in its phase and is represented by the symbol a in the formula. The quantity α is the phase of the constituent at the initial instant from which the time is reckoned. The period of the constituent is the time required for the phase to change through 360° and is the cycle of the astronomical condition represented by the constituent.
- HIGH WATER (HW)**—The maximum height reached by a rising tide. The height may be due solely to the periodic tidal forces or it may have superimposed upon it the effects of prevailing meteorological conditions. Use of the synonymous term, *high tide*, is discouraged.
- HIGHER HIGH WATER (HHW)**—The higher of the two high waters of any tidal day.
- HIGHER LOW WATER (HLW)**—The higher of the two low waters of any tidal day.
- HYDRAULIC CURRENT**—A current in a channel caused by a difference in the surface level at the two ends. Such a current may be expected in a strait connecting two bodies of water in which the tides differ in time or range. The current in the East River, N.Y., connecting Long Island Sound and New York Harbor, is an example.
- KNOT**—A unit of speed, one international nautical mile (1,852.0 meters or 6,076.11549 international feet) per hour.
- LOW WATER (LW)**—The minimum height reached by a falling tide. The height may be due solely to the periodic tidal forces or it may have superimposed upon it the effects of meteorological conditions. Use of the synonymous term, *low tide*, is discouraged.
- LOWER HIGH WATER (LHW)**—The lower of the two high waters of any tidal day.
- LOWER LOW WATER (LLW)**—The lower of the two low waters of any tidal day.
- LUNAR DAY**—The time of the rotation of the Earth with respect to the Moon, or the interval between two successive upper transits of the Moon over the meridian of a place. The mean lunar day is approximately 24.84 solar hours long, or 1.035 times as long as the mean solar day.
- LUNAR INTERVAL**—The difference in time between the transit of the Moon over the meridian of Greenwich and over a local meridian. The average value of this interval expressed in hours is $0.069 L$, in which L is the local longitude in degrees, positive for west longitude and negative for east longitude. The lunar interval equals the difference between the local and Greenwich interval of a tide or current phase.
- LUNICURRENT INTERVAL**—The interval between the Moon's transit (upper or lower) over the local or Greenwich meridian and a specified phase of the tidal current following the transit. Examples: *strength of flood interval and strength of ebb interval*, which may be abbreviated to *flood interval and ebb interval*, respectively. The interval is described as local or Greenwich according to whether the reference is to the Moon's transit over the local or Greenwich meridian. When not otherwise specified, the reference is assumed to be local.
- LUNITIDAL INTERVAL**—The interval between the Moon's transit (upper or lower) over the local or Greenwich meridian and the following high or low water. The average of all high water intervals for all phases of the Moon is known as *mean high water lunitidal interval* and is abbreviated to high water interval (HWI). Similarly the *mean low water lunitidal interval* is abbreviated to low water interval (LWI). The interval is described as local or Greenwich according to whether the reference is to the transit over the local or Greenwich meridian. When not otherwise specified, the reference is assumed to be local.
- MEAN HIGH WATER (MHW)**—A tidal datum. The arithmetic mean of the high water heights observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). For stations with shorter series, simultaneous observational comparisons are made with a primary control tide station in order to derive the equivalent of a 19-year value.

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- MEAN HIGHER HIGH WATER (MHHW)**—A tidal datum. The arithmetic mean of the higher high water heights of a mixed tide observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). Only the higher high water of each pair of high waters, or the only high water of a tidal day is included in the mean.
- MEAN HIGHER HIGH WATER LINE (MHHWL)**—The intersection of the land with the water surface at the elevation of mean higher high water.
- MEAN LOW WATER (MLW)**—A tidal datum. The arithmetic mean of the low water heights observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). For stations with shorter series, simultaneous observational comparisons are made with a primary control tide station in order to derive the equivalent of a 19-year value.
- MEAN LOW WATER SPRINGS (MLWS)**—A tidal datum. Frequently abbreviated *spring low water*. The arithmetic mean of the low water heights occurring at the time of the spring tides observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch).
- MEAN LOWER LOW WATER (MLLW)**—A tidal datum. The arithmetic mean of the lower low water heights of a mixed tide observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). Only the lower low water of each pair of low waters, or the only low water of a tidal day is included in the mean.
- MEAN RANGE OF TIDE (Mn)**—The difference in height between mean high water and mean low water.
- MEAN RIVER LEVEL**—A tidal datum. The average height of the surface of a tidal river at any point for all stages of the tide observed over a 19-year Metonic cycle (the National Tidal Datum Epoch), usually determined from hourly height readings. In rivers subject to occasional freshets the river level may undergo wide variations, and for practical purposes certain months of the year may be excluded in the determination of tidal datums. For charting purposes, tidal datums for rivers are usually based on observations during selected periods when the river is at or near low water stage.
- MEAN SEA LEVEL (MSL)**—A tidal datum. The arithmetic mean of hourly water elevations observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch). Shorter series are specified in the name; e.g., monthly mean sea level and yearly mean sea level.
- MEAN TIDE LEVEL (MTL)**—Also called half-tide level. A tidal datum midway between mean high water and mean low water.
- MIXED TIDE**—Type of tide with a large inequality in the high and/or low water heights, with two high waters and two low waters usually occurring each tidal day. In strictness, all tides are mixed but the name is usually applied to the tides intermediate to those predominantly semidiurnal and those predominantly diurnal.
- NATIONAL TIDAL DATUM EPOCH**—The specific 19-year period adopted by the National Ocean Service as the official time segment over which tide observations are taken and reduced to obtain mean values (e.g., mean lower low water, etc.) for tidal datums. It is necessary for standardization because of periodic and apparent secular trends in sea level. The present National Tidal Datum Epoch is 1960 through 1978. It is reviewed annually for possible revision and must be actively considered for revision every 25 years.
- NEAP TIDES OR TIDAL CURRENTS**—Tides of decreased range or tidal currents of decreased speed occurring semimonthly as the result of the Moon being in quadrature. The *neap range* (N_p) of the tide is the average semidiurnal range occurring at the time of neap tides and is most conveniently computed from the harmonic constants. It is smaller than the mean range where the type of tide is either semidiurnal or mixed and is of no practical significance where the type of tide is diurnal. The average height of the high waters of the neap tides is called *neap high water* or *high water neaps* (MHWN) and the average height of the corresponding low waters is called neap low water or low water neaps (MLWN).
- PERIGEAN TIDES OR TIDAL CURRENTS**—Tides of increased range or tidal currents of increased speed occurring monthly as the result of the Moon being in perigee or nearest the Earth. The *perigean range* (P_n) of tide is the average semidiurnal range occurring at the time of perigean tides and is most conveniently computed from the harmonic constants. It is larger than the mean range where the type of tide is either semidiurnal or mixed, and is of no practical significance where the type of tide is diurnal.
- RANGE OF TIDE**—The difference in height between consecutive high and low waters, the *mean range* is the difference in height between mean high water and mean low water. Where the type of tide is diurnal the mean range is the same as the diurnal range.

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For other ranges, see great diurnal, spring, neap, perigean, apogean, and tropic tides.

REFERENCE STATION—A tide or current station for which independent daily predictions are given in the *Tide Tables and Tidal Current Tables*, and from which corresponding predictions are obtained for subordinate stations by means of differences and ratios.

REVERSING CURRENT—A tidal current which flows alternately in approximately opposite directions with a slack water at each reversal of direction. Currents of this type usually occur in rivers and straits where the direction of flow is more or less restricted to certain channels. When the movement is towards the shore or up a stream, the current is said to be flooding, and when in the opposite direction it is said to be ebbing. The combined flood and ebb movement including the slack water covers, on an average, 12.42 hours for the semidiurnal current. If unaffected by a nontidal flow, the flood and ebb movements will each last about 6 hours, but when combined with such a flow, the durations of flood and ebb may be quite unequal. During the flow in each direction the speed of the current will vary from zero at the time of slack water to a maximum about midway between the slacks.

ROTARY CURRENT—A tidal current that flows continually with the direction of flow changing through all points of the compass during the tidal period. Rotary currents are usually found offshore where the direction of flow is not restricted by any barriers. The tendency for the rotation in direction has its origin in the Coriolis force and, unless modified by local conditions, the change is clockwise in the Northern Hemisphere and counterclockwise in the Southern. The speed of the current usually varies throughout the tidal cycle, passing through the two maxima in approximately opposite directions and the two minima with the direction of the current at approximately 90° from the direction at time of maximum speed.

SEMIDIURNAL—Having a period or cycle of approximately one-half of a tidal day. The predominating type of tide throughout the world is semidiurnal, with two high waters and two low waters each tidal day. The tidal current is said to be semidiurnal when there are two flood and two ebb periods each day.

SET (OF CURRENT)—The direction *towards* which the current flows.

SLACK WATER—The state of a tidal current when its speed is near zero, especially the moment when a

reversing current changes direction and its speed is zero. The term is also applied to the entire period of low speed near the time of turning of the current when it is too weak to be of any practical importance in navigation. The relation of the time of slack water to the tidal phases varies in different localities. For standing tidal waves, slack water occurs near the times of high and low water, while for progressive tidal waves, slack water occurs midway between high and low water.

SPRING TIDES OR TIDAL CURRENTS—Tides of increased range or tidal currents of increased speed occurring semimonthly as the result of the Moon being new or full. The *spring range* (Sg) of tide is the average semidiurnal range occurring at the time of spring tides and is most conveniently computed from the harmonic constants. It is larger than the mean range where the type of tide is either semidiurnal or mixed, and is of no practical significance where the type of tide is diurnal. The mean of the high waters of the spring tide is called *spring high water or mean high water springs* (MHWS), and the average height of the corresponding low waters is called *spring low water or mean low water springs* (MLWS).

STAND OF TIDE—Sometimes called a platform tide. An interval at high or low water when there is no sensible change in the height of the tide. The water level is stationary at high and low water for only an instant, but the change in level near these times is so slow that it is not usually perceptible. In general, the duration of the apparent stand will depend upon the range of tide, being longer for a small range than for a large range, but where there is a tendency for a double tide the stand may last for several hours even with a large range of tide.

STANDARD TIME—A kind of time based upon the transit of the Sun over a certain specified meridian, called the *time meridian*, and adopted for use over a considerable area. With a few exceptions, standard time is based upon some meridian which differs by a multiple of 15° from the meridian of Greenwich.

STRENGTH OF CURRENT—Phase of tidal current in which the speed is a maximum; also the speed at this time. Beginning with slack before flood in the period of a reversing tidal current (or minimum before flood in a rotary current), the speed gradually increases to flood strength and then diminishes to slack before ebb (or minimum before ebb in a rotary current), after which the current turns in direction, the speed increases to ebb strength and then diminishes to slack before flood completing the cycle. If it is assumed that the speed throughout the cycle varies as the ordinates of a cosine curve, it can

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be shown that the average speed for an entire flood or ebb period is equal to $2/\pi$ or 0.6366 of the speed of the corresponding strength of current.

SUBORDINATE CURRENT STATION—(1) A current station from which a relatively short series of observations is reduced by comparison with simultaneous observations from a control current station. (2) A station listed in the *Tidal Current Tables* for which predictions are to be obtained by means of differences and ratios applied to the full predictions at a reference station .

SUBORDINATE TIDE STATION—(1) A tide station from which a relatively short series of observations is reduced by comparison with simultaneous observations from a tide station with a relatively long series of observations. (2) A station listed in the *Tide Tables* for which predictions are to be obtained by means of differences and ratios applied to the full predictions at a reference station.

TIDAL CURRENT TABLES—Tables which give daily predictions of the times and speeds of the tidal currents. These predictions are usually supplemented by current differences and constants through which additional predictions can be obtained for numerous other places.

TIDAL DIFFERENCE—Difference in time or height of a high or low water at a subordinate station and at a reference station for which predictions are given in the *Tide Tables*. The difference, when applied according to sign to the prediction at the reference station, gives the corresponding time or height for the subordinate station .

TIDE—The periodic rise and fall of the water resulting from gravitational interactions between the Sun, Moon, and Earth. The vertical component of the particulate motion of a tidal wave. Although the accompanying horizontal movement of the water is part of the same phenomenon, it is preferable to designate the motion as tidal current.

TIDE TABLES—Tables which give daily predictions of the times and heights of high and low waters. These predictions are usually supplemented by tidal differences and constants through which additional predictions can be obtained for numerous other places.

TIME MERIDIAN—A meridian used as a reference for time.

TROPIC CURRENTS—Tidal currents occurring semimonthly when the effect of the Moon's maximum declination is greatest. At these times the tendency of the Moon to produce a diurnal inequality in the current is at a maximum.

TROPIC RANGES—The *great tropic range* (G_c), or *tropic range*, is the difference in height between tropic higher high water and tropic lower low water. The *small tropic range* (S_c) is the difference in height between tropic lower high water and tropic higher low water. The *mean tropic range* (M_c) is the mean between the great tropic range and the small tropic range. The small tropic range and the mean tropic range are applicable only when the type of tide is semidiurnal or mixed. Tropic ranges are most conveniently computed from the harmonic constants.

TROPIC TIDES—Tides occurring semimonthly when the effect of the Moon's maximum declination is greatest. At these times there is a tendency for an increase in the diurnal range. The tidal datums pertaining to the tropic tides are designated as *tropic higher high water* (T_cHHW), *tropic lower high water* (T_cLHW), *tropic higher low water* (T_cHLW), and *tropic lower low water* (T_cLLW).

TYPE OF TIDE—A classification based on characteristic forms of a tide curve. Qualitatively, when the two high waters and two low waters of each tidal day are approximately equal in height, the tide is said to be *semidiurnal*; when there is a relatively large diurnal inequality in the high or low waters or both, it is said to be *mixed*; and when there is only one high water and one low water in each tidal day, it is said to be *diurnal*.

VANISHING TIDE—In a mixed tide with very large diurnal inequality, the lower high water (or higher low water) frequently becomes indistinct (or vanishes) at time of extreme declinations. During these periods the diurnal tide has such overriding dominance that the semidiurnal tide, although still present, cannot be readily seen on the tide curve.

INDEX TO STATIONS
(Numbers refer to table 2)

[Stations marked with an asterisk (*) are reference stations for which daily predictions are given in table 1. Page numbers of reference stations are given in parentheses.]

	No.		No.
A			
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Abbots Meadow, N.J.....	1781	Apalachicola Bay, Fla.....	4259-4273
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Abrolhos Anchorage, Brazil.....	5043	Apalachicola River (A&N RR bridge)..	4265
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Mobjack, Va.....	2253	Narragansett Pier, R.I.....	1057
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Moisie Bay, Quebec.....	309	Narrow Bay, N.Y.....	1263
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Moltke Harbor, South Georgia, Is.....	5219	Nassau, Bahamas.....	4705
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Moose Factory, Hudson Bay.....	143	Nettles Island, Fla.....	3435
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Morehead City, N.C.....	2459,2461	New Bedford, N.J.....	1495
Moreland Cemetery, S.C.....	3011	New Brunswick.....	383-407,557-593
Morgan River, S.C.....	2885-2895	New Brunswick, N.J.....	1459
Morgans Point, Texas.....	4567	New Canal USCG station, La.....	4423
Moriches Inlet, N.Y.....	1259,1261	New Castle, Del.....	1819
Morro de Sao Paulo, Brazil.....	5029	New Chehaw River, S.C.....	2897
Mortier Bay, Newfoundland.....	243	New Gretna, N.J.....	1597
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Mount Pleasant Plantation, S.C.....	2599	New London, Conn. * (60).....	1075
Mount Sinai Harbor, N.Y.....	1217	New Meadows River, Maine.....	741,743
Mountain Point, Md.....	2121	New Millford, N.J.....	1431
Muddy Creek entrance, Va.....	1987	New Orleans, La.....	4463
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Mullica River Marina, N.J.....	1603	New River, S.C.....	3019-3031
Munson Island, Fla.....	3813	New River Inlet, N.C.....	2477
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Newport News, Va.....	2305	Ocean Beach, N.J.....	1519
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Nomini Creek, Va.....	2169	Ochlockonee Bay, Fla.....	4231
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North Harris Channel, Fla.....	3893	Old Plantation Flats, Va.....	1971
North Haven, Maine.....	655	Old Point Comfort, Va.....	2281
North Haven Island, Maine.....	657	Old Port Tampa, Fla.....	4127
North Head, Grand Manan Island.....	577	Old Rice Mill, S.C.....	2739
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North Miami Beach, Fla.....	3565	Old Tracadie Gully ent., New Brunswick.	393
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North Palm Beach, Lake Worth Cr., Fla..	3495	Oldmans Creek, N.J.....	1829,1831
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Wapitagan Harbour, Quebec.....	291
Wappoo Creek, S.C.....	2759
Ward's Dock, S.C.....	2559
Wards Island, N.Y.....	1171
Wares Wharf, Va.....	2233
Waretown, N.J.....	1547
Warrington, Fla.....	4317
Washington, D.C. * (112).....	2203
Washington Channel, D.C.....	2203
Washington Navy Yard, D.C.....	2205
Wasque Point, Mass.....	949
Wassaw Sound, Ga.....	3053-3065
Watch Hill Point, R.I.....	1067
Watchogue Creek, N.Y.....	1279
Water Bay, St. Thomas, VI.....	4851
Water Key, Fla.....	3795
Water Keys, Fla.....	3837
Watts Island, Va.....	1983
Waveland, Miss.....	4413
Webeck Harbour, Labrador.....	185
Webhannet River, Maine.....	795
Wednesday Point, Fla.....	3623
Weehawken, N.J.....	1355
Weekapaug Point, R.I.....	1065
Weeks Bay, La.....	4533
Weir Creek, N.J.....	1721
Weir River, Mass.....	879
Welaka, Fla.....	3329
Wellfleet, Mass.....	907
Wellington Channel, Artic.....	29
Wells, Maine.....	795
Welshpool, New Brunswick.....	585
West Bahia Honda Key, Fla.....	3767
West Bay Creek, Fla.....	4303
West Bay, Texas.....	4587,4589
West Branch, Boyds Creek, S.C.....	2983,2985
West Branch, Cooper River, S.C.....	2741,2743
West Cote Blanche Bay, La.....	4527
West Creek, N.J.....	1699,1701
West Creek, Westecunk Creek, N.J.....	1575
West Falmouth Harbor, Mass.....	973
West Fire Island, N.Y.....	1271
West Lake, Fla.....	3551,3553
West Mystic, Conn.....	1071
West Palm Beach Canal, Fla.....	3503

	No.
West Point, Va.....	2271
West River, Md.....	2137
West Wildwood, N.J.....	1661
Westbrook, Duck I. Roads, Conn.....	1107
Westecunk Creek, N.J.....	1573,1575
Westerly, Pawcatuck River, R.I.....	1069
Western Branch, Va.....	2289
Westport, Nova Scotia.....	525
Westport Harbor, Mass.....	997
Westport River, Mass.....	997,999
Westville, N.J.....	1861
Wetappo Creek, Fla.....	4295
Weymouth, Nova Scotia.....	529
Weymouth Fore River Bridge.....	873
Weymouth Plantation, S.C.....	2603
Whale Branch, S.C.....	2919-2923
Whale Harbor, Fla.....	3677,3679
Wharf Creek, S.C.....	2675
Whiskey Creek, Fla.....	3545,3549
White Bay, Newfoundland.....	219
White Beach, Fla.....	4261
White City, Fla.....	4279
Whitehaven, Md.....	2017
Whitehaven Harbour, Nova Scotia.....	479
Whitestone, N.Y.....	1159
Whitewater Bay, Fla.....	3979
Whiting Bay, Maine.....	603,605
Wickford, R.I.....	1053
Wicomico River, Md.....	2017,2019
Wicomico River, Potomac River.....	2173
Wiggins, S.C.....	2899
Wiggins Pass, Fla.....	4013
Wild Cove, Newfoundland.....	217
Wildwood Crest, N.J.....	1665,1669
Willcox Wharf, Va.....	2335
Willetts Point, N.Y.....	1189
William Brooks Park, Ala.....	4371
Williams Harbour, Labrador.....	169
Williams Point, Fla.....	3397
Williamsburg Bridge, N.Y.....	1181
Willtown Bluff, S.C.....	2851
Wilmington Beach, N.C.....	2481
Wilmington Marine Terminal, Del.....	1823
Wilmington, N.C. * (136).....	2505
Wilmington River, Ga.....	3059-3063
Wilson Cove, Maine.....	747
Wilson's Beach, New Brunswick.....	587
Wimbee Creek, S.C.....	2913
Windley Key, Fla.....	3673,3677,3679
Windmill Point, Rappahannock River, Va.....	2223
Windmill Point Light, Va.....	2221
Windsor, Nova Scotia.....	545
Windsor Plantation, N. Edisto R., S.C.....	2817
Windsor Plantation, Black R., S.C.....	2593
Wine Island, La.....	4497
Winea Plantation, S.C.....	2597
Winslow Farms, N.J.....	1799
Winter Harbor, Maine.....	625
Winter Harbour, Melville Island.....	5
Winter Island, Fox Channel.....	131
Winterport, Maine.....	667
Winyah Bay, S.C.....	2577-2699
Winyah Bay Entrance, S.C.....	2577
Wiscasset, Maine.....	717
Wishart Point, Va.....	1925
Withlacoochee River entrance, Fla.....	4203
Wolf Island, Ga.....	3145
Wolf River, Miss.....	4409
Wolf Trap Light, Va.....	2251
Wolstenholme Fjord, Greenland.....	93
Woodbridge Creek, N.J.....	1445
Woodbury Creek, N.J.....	1855
Woodland Beach, Del.....	1759
Woodlawn Beach, Fla.....	4337

	No.
Woodmere, N.Y.....	1315
Woods Hole, Mass.....	961-969
Woods Hole Oceanographic Inst. * (48)..	963
Woodville, S.C.....	2755
Woody Island, Newfoundland.....	241
Woolford, Md.....	2041
Worlds Fair Marina, N.Y.....	1163
Worton Creek, Md.....	2093
Wrightsville Beach, N.C.....	2481
Wright Island Landing, Va.....	2325
Wright River, S.C.....	3033
Wychmere Harbor, Mass.....	921

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Yale, Conn.....	1077
Yamato, Fla.....	3517
Yarmouth Harbour, Nova Scotia.....	523
Yauhannah Bridge, S.C.....	2615
Yeaman's Hall, S.C.....	2717
Yeocomico River, Va.....	2163
Yonges Island, S.C.....	2829
York Harbor, Maine.....	799,801
York River, Va.....	2259-2277
Yorktown, Va.....	2261,2263

Z

Zekes Island, N.C.....	2493
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ASTRONOMICAL DATA, 2020

January			
	d	h	m
A	2	02	..
☾	3	04	45
E	3	05	..
N	10	07	..
☽	10	19	21
P	13	20	..
E	16	13	..
☾	17	12	58
S	23	04	..
●	24	21	42
A	29	21	..
E	30	13	..

February			
	d	h	m
☾	2	01	42
N	6	17	..
☽	9	07	33
P	10	20	..
E	12	19	..
☾	15	22	17
S	19	09	..
●	23	15	32
A	26	12	..
E	26	19	..

March			
	d	h	m
☾	2	19	57
N	5	02	..
☽	9	17	48
P	10	06	..
E	11	05	..
☾	16	09	34
S	17	15	..
☽ _m	20	03	50
●	24	09	28
A	24	15	..
E	25	01	..

April			
	d	h	m
N	1	10	..
☾	1	10	21
E	7	16	..
P	7	18	..
☽	8	02	35
S	13	21	..
☾	14	22	56
A	20	19	..
E	21	07	..
●	23	02	26
N	28	16	..
☾	30	20	38

May			
	d	h	m
E	5	02	..
P	6	03	..
☽	7	10	45
S	11	07	..
☾	14	14	03
A	18	08	..
E	18	14	..
●	22	17	39
N	25	22	..
☾	30	03	30

June			
	d	h	m
E	1	11	..
P	3	04	..
☽	5	19	12
S	7	17	..
☾	13	06	24
E	14	22	..
A	15	01	..
☽ _j	20	21	44
●	21	06	41
N	22	04	..
☾	28	08	16
E	28	17	..
P	30	02	..

July			
	d	h	m
S	5	02	..
☽	5	04	44
E	12	06	..
A	12	19	..
☾	12	23	29
N	19	12	..
●	20	17	33
P	25	05	..
E	25	22	..
☾	27	12	33

August			
	d	h	m
S	1	09	..
☽	3	15	59
E	8	13	..
A	9	14	..
☾	11	16	45
N	15	21	..
●	19	02	42
P	21	11	..
E	22	04	..
☾	25	17	58
S	28	15	..

September			
	d	h	m
☽	2	05	22
E	4	19	..
A	6	06	..
☾	10	09	26
N	12	06	..
●	17	11	00
E	18	13	..
P	18	14	..
☽ _s	22	13	31
☾	24	01	55
S	24	20	..

October			
	d	h	m
☽	1	21	05
E	2	02	..
A	3	17	..
N	9	14	..
☾	10	00	40
E	16	00	..
●	16	19	31
P	17	00	..
S	22	03	..
☾	23	13	23
E	29	08	..
A	30	19	..
☽	31	14	49

November			
	d	h	m
N	5	20	..
☾	8	13	46
E	12	11	..
P	14	12	..
●	15	05	07
S	18	12	..
☾	22	04	45
E	25	15	..
A	27	00	..
☽	30	09	30

December			
	d	h	m
N	3	02	..
☾	8	00	37
E	9	20	..
P	12	21	..
●	14	16	17
S	15	23	..
☽ _d	21	10	02
☾	21	23	41
E	22	22	..
A	24	17	..
☽	30	03	28
N	30	08	..
P	31	23	..

LUNAR DATA

- | | |
|--|---|
| <ul style="list-style-type: none"> ● -- new Moon ☾ -- first quarter ☽ -- full Moon ☾ -- last quarter | <ul style="list-style-type: none"> A -- Moon in apogee P -- Moon in perigee N -- Moon farthest north of Equator E -- Moon on Equator S -- Moon farthest south of Equator |
|--|---|

SOLAR DATA

- ☽_m -- March equinox
- ☽_j -- June solstice
- ☽_s -- September equinox
- ☽_d -- December solstice

Greenwich mean time (GMT) or universal time (UT) is the mean solar time on the Greenwich meridian reckoned in days of 24 mean solar hours written as 00^h at midnight and 12^h at noon. To convert the above times to those of other standard time meridians, add 1 hour for each 15° of east longitude of the desired meridian and subtract 1 hour for each 15° of west longitude. This table was compiled from data supplied by the Nautical Almanac Office, United States Naval Observatory.



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